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* * * * * * * * * * Welcome to STN International * * * * * * * * * *

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NEWS 8	FEB 16	INSPEC Adding Its Own IPC codes and Author's E-mail Addresses
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NEWS 10	APR 02	PATDPAFULL: Application and priority number formats enhanced
NEWS 11	APR 02	DWPI: New display format ALLSTR available
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NEWS 13	APR 02	EMBASE Adds Unique Records from MEDLINE, Expanding Coverage back to 1948
NEWS 14	APR 07	CA/CAplus CLASS Display Streamlined with Removal of Pre-IPC 8 Data Fields
NEWS 15	APR 07	50,000 World Traditional Medicine (WTM) Patents Now Available in CAplus
NEWS 16	APR 07	MEDLINE Coverage Is Extended Back to 1947
NEWS 17	JUN 16	WPI First View (File WPIFV) will no longer be available after July 30, 2010

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,
AND CURRENT DISCOVER FILE IS DATED 15 JANUARY 2010.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:18:25 ON 16 JUN 2010

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.22       0.22

FILE 'REGISTRY' ENTERED AT 15:18:41 ON 16 JUN 2010
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STRUCTURE FILE UPDATES:   15 JUN 2010  HIGHEST RN 1227780-27-9
DICTIONARY FILE UPDATES:  15 JUN 2010  HIGHEST RN 1227780-27-9

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

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experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\STNEXP\Queries\10-589,051-2.str
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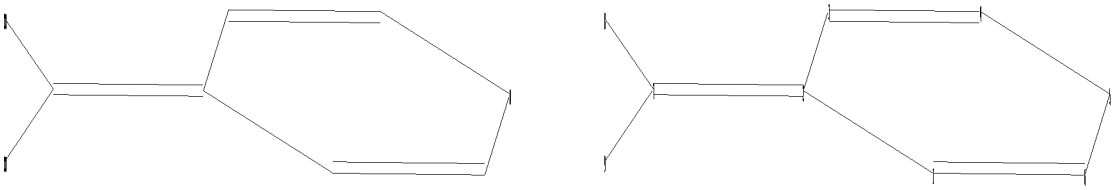

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chain nodes :
7  8  9
ring nodes :
1  2  3  4  5  6
chain bonds :
2-7  7-8  7-9
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6
exact/norm bonds :
1-2  1-6  2-3  3-4  4-5  5-6
exact bonds :
2-7  7-8  7-9
isolated ring systems :
containing 1 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:CLASS  8:CLASS  9:CLASS
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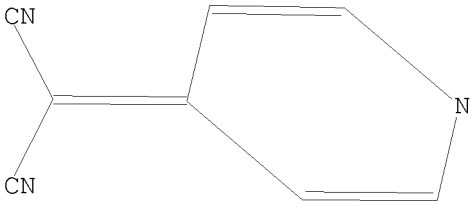
L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 ssss sam
COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID
The query entered contains both search terms created by
structure-building or screen commands and text search terms. L#s
created via the STRUCTURE or SCREEN commands must be searched in the
structures files separately from text terms or profiles. The L#
answer sets from structure searches can be used in crossover searches
and can be combined with text terms.

=> s l1 sss sam
SAMPLE SEARCH INITIATED 15:19:14 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 221 TO ITERATE

100.0% PROCESSED 221 ITERATIONS 14 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 3529 TO 5311
PROJECTED ANSWERS: 56 TO 504

L2 14 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 15:19:22 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4999 TO ITERATE

100.0% PROCESSED 4999 ITERATIONS 233 ANSWERS
SEARCH TIME: 00.00.01

L3 233 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 192.03 192.25

FILE 'CAPLUS' ENTERED AT 15:19:43 ON 16 JUN 2010
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FILE COVERS 1907 - 16 Jun 2010 VOL 152 ISS 25
FILE LAST UPDATED: 15 Jun 2010 (20100615/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2010.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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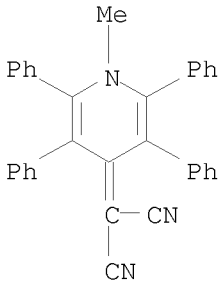
=> s l3
L4          71 L3

=> s l3 and (py<2006 or ay<2006 or pry<2006)
            71 L3
      26340116 PY<2006
       5548871 AY<2006
       5037804 PRY<2006
L5          46 L3 AND (PY<2006 OR AY<2006 OR PRY<2006)

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 46 ANSWERS - CONTINUE? Y/(N):y

L5   ANSWER 1 OF 46  CAPLUS  COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER:        2008:1383593  CAPLUS
DOCUMENT NUMBER:         149:555099
TITLE:                   The retro-Diels-Alder reaction. Part II. Dienophiles
                         with one or more heteroatom
AUTHOR(S):               Rickborn, Bruce
CORPORATE SOURCE:        University of California, Santa Barbara, CA, USA
SOURCE:                  Organic Reactions (Hoboken, NJ, United States) (
                         1998), 53, No pp. given
                         CODEN: ORHNBA
                         URL: http://www3.interscience.wiley.com/cgi-
                         bin/mrwhome/107610747/HOME
PUBLISHER:               John Wiley & Sons, Inc.
DOCUMENT TYPE:           Journal; General Review; (online computer file)
LANGUAGE:                English
OTHER SOURCE(S):         CASREACT 149:555099
AB   A review of the article The retro-Diels-Alder reaction. Part II.
     Dienophiles with one or more heteroatom.
IT   54133-10-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (The Retro-Diels-Alder Reaction Part II. Dienophiles with One or More
```

Heteroatom)
RN 54133-10-7 CAPLUS
CN Propanedinitrile, 2-(1-methyl-2,3,5,6-tetraphenyl-4(1H)-pyridinylidene)-
(CA INDEX NAME)



L5 ANSWER 2 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:171924 CAPLUS
DOCUMENT NUMBER: 146:258239
TITLE: Use of ionic 1,4-dihydropyridine UV-A sunscreens
INVENTOR(S): Berg-Schultz, Katja; Mendrok-Edinger, Christine; Poschalko, Alexander; Westenfelder, Horst
PATENT ASSIGNEE(S): DSM IP Assets B.V., Neth.
SOURCE: PCT Int. Appl., 92pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

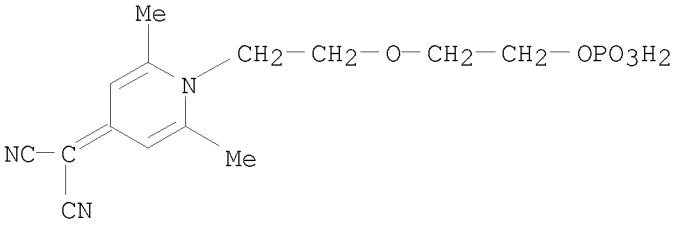
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007017179	A1	20070215	WO 2006-EP7691	20060803 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2005-17041 A 20050805 <--
OTHER SOURCE(S): MARPAT 146:258239
AB The present invention relates to advantageous uses of 1,4-dihydropyridine derivs. and to novel cosmetic or dermatol. sunscreen compns. containing 1,4-dihydropyridine derivs. Thus, 4-dicyanomethylene-2,6-dimethyl-1,4-dihydropyridine-N-(ethyloxyethyloxyphosphate ester monosodium salt) was prepared and formulated at 2% together with 4% Parsol MCX into an oil/water sunscreen lotion which absorbs in the UV-A and UV-B range.
IT 863406-54-6P 863406-56-8P 863406-58-0P
863406-60-4P 863406-62-6P 863406-63-7P
863406-64-8P 863406-65-9P 863406-66-0P
863406-67-1P 863406-68-2P 863406-69-3P
863406-70-6P 863406-72-8P 863406-73-9P

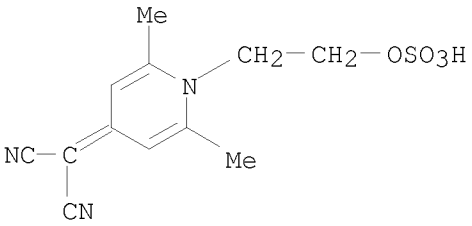
863406-74-0P 863406-75-1P 863406-76-2P
863406-77-3P 863406-78-4P 863406-79-5P
863406-80-8P 863406-81-9P 863406-99-9P
863407-00-5P 863407-01-6P 863407-02-7P
863407-03-8P 924726-36-3P 924726-37-4P
924726-38-5P 924726-39-6P 924726-40-9P
924726-42-1P
RL: COS (Cosmetic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and compns. of ionic 1,4-dihydropyridine UV-A cosmetic or dermatol. sunscreens)

RN 863406-54-6 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-[2-(phosphonooxy)ethoxy]ethyl]-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



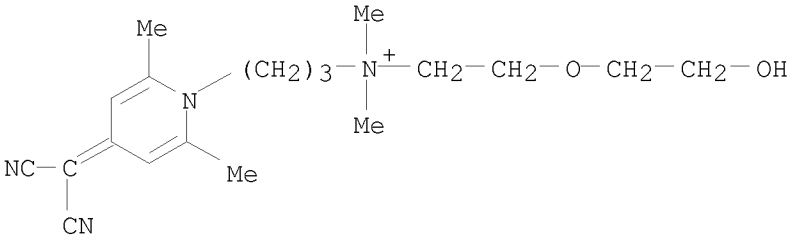
● Na

RN 863406-56-8 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



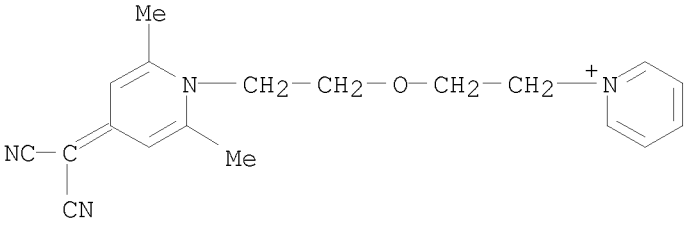
● Na

RN 863406-58-0 CAPLUS
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N-[2-(2-hydroxyethoxy)ethyl]-N,N,2,6-tetramethyl-, iodide (1:1) (CA INDEX NAME)



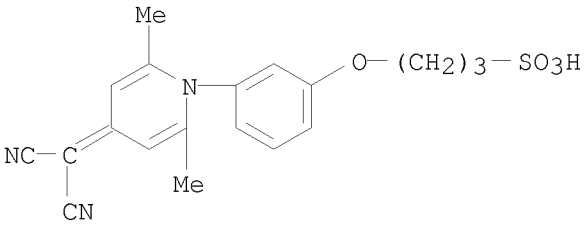
● I^-

RN 863406-60-4 CAPLUS
CN Pyridinium, 1-[2-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]ethyl]-, chloride (1:1) (CA INDEX NAME)



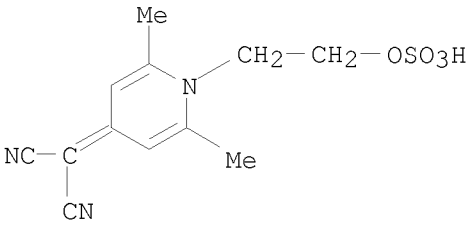
● Cl^-

RN 863406-62-6 CAPLUS
CN 1-Propanesulfonic acid, 3-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]phenoxy]-, sodium salt (1:1) (CA INDEX NAME)

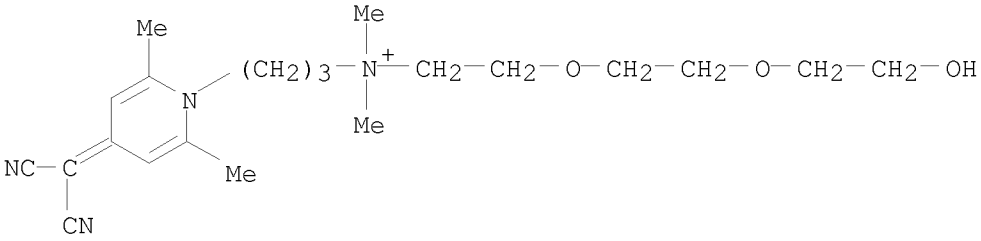


● Na

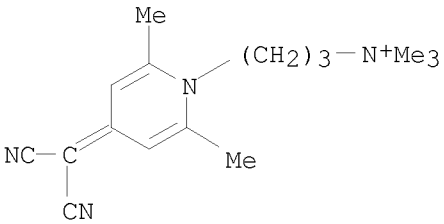
RN 863406-63-7 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, potassium salt (1:1) (CA INDEX NAME)



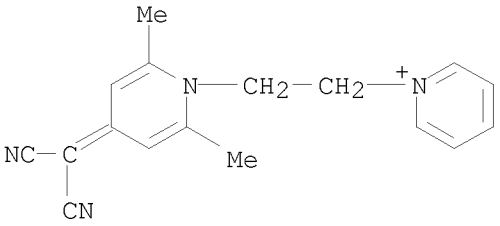
RN 863406-64-8 CAPLUS
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]-N,N,2,6-tetramethyl-, chloride (1:1) (CA INDEX NAME)



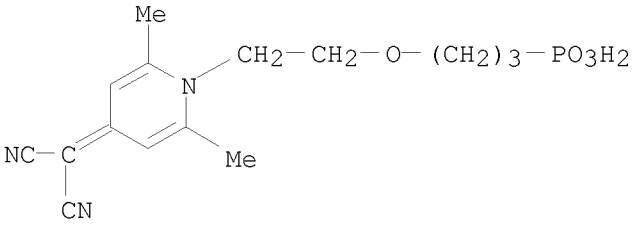
RN 863406-65-9 CAPLUS
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N,N,N,2,6-pentamethyl-, iodide (1:1) (CA INDEX NAME)



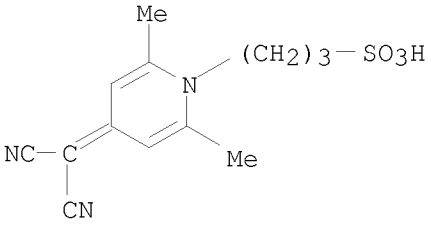
RN 863406-66-0 CAPLUS
CN Pyridinium, 1-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethyl]-, bromide (1:1) (CA INDEX NAME)



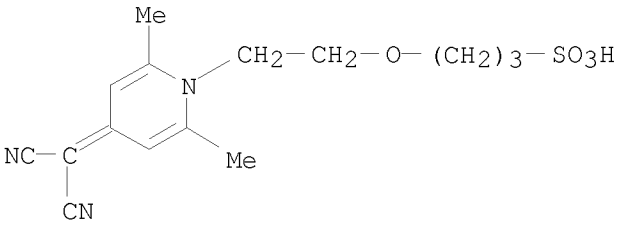
RN 863406-67-1 CAPLUS
CN Phosphonic acid, P-[3-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]propyl]-, sodium salt (1:1) (CA INDEX NAME)



RN 863406-68-2 CAPLUS
CN 1(4H)-Pyridinepropanesulfonic acid, 4-(dicyanomethylene)-2,6-dimethyl-, potassium salt (1:1) (CA INDEX NAME)

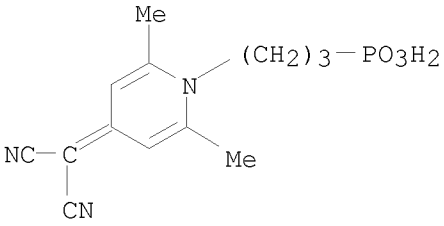


RN 863406-69-3 CAPLUS
CN 1-Propanesulfonic acid, 3-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]-, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 863406-70-6 CAPLUS
CN Phosphonic acid, P-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]propyl]-, potassium salt (1:2) (CA INDEX NAME)

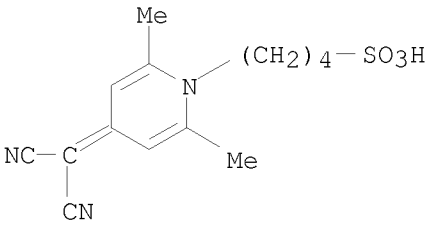


●2 K

RN 863406-72-8 CAPLUS
CN 1(4H)-Pyridinebutanesulfonic acid, 4-(dicyanomethylene)-2,6-dimethyl-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (CA INDEX NAME)

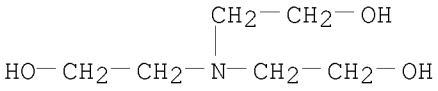
CM 1

CRN 863406-71-7
CMF C14 H17 N3 O3 S



CM 2

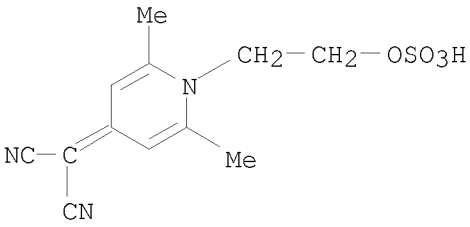
CRN 102-71-6
CMF C6 H15 N O3



RN 863406-73-9 CAPLUS
CN Propanedinitrile, [2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (CA INDEX NAME)

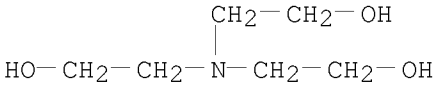
CM 1

CRN 863406-55-7
CMF C12 H13 N3 O4 S

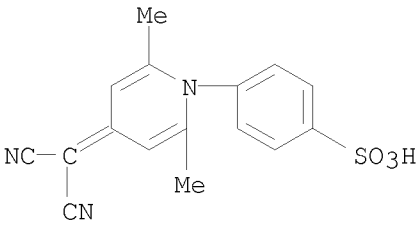


CM 2

CRN 102-71-6
CMF C6 H15 N O3

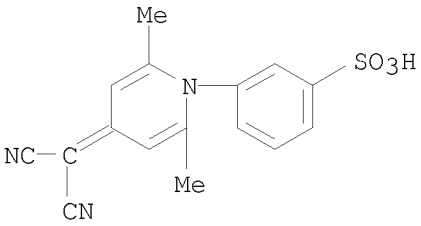


RN 863406-74-0 CAPLUS
CN Benzenesulfonic acid, 4-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, sodium salt (1:1) (CA INDEX NAME)



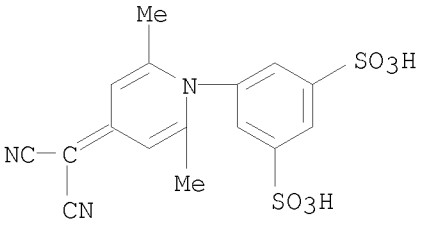
● Na

RN 863406-75-1 CAPLUS
CN Benzenesulfonic acid, 3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, potassium salt (1:1) (CA INDEX NAME)



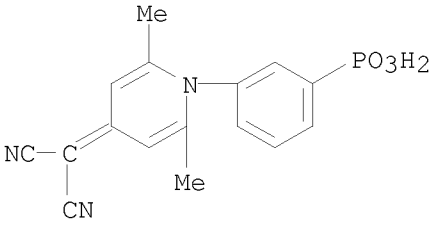
● K

RN 863406-76-2 CAPLUS
CN 1,3-Benzenedisulfonic acid, 5-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, potassium salt (1:1) (CA INDEX NAME)



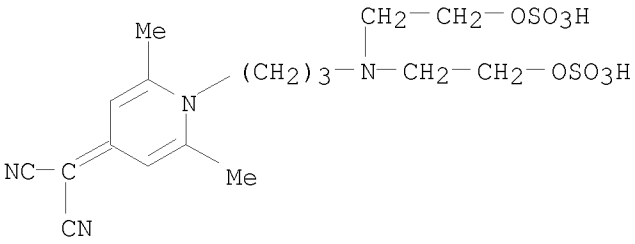
● K

RN 863406-77-3 CAPLUS
CN Phosphonic acid, P-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]phenyl]-, lithium salt (1:1) (CA INDEX NAME)



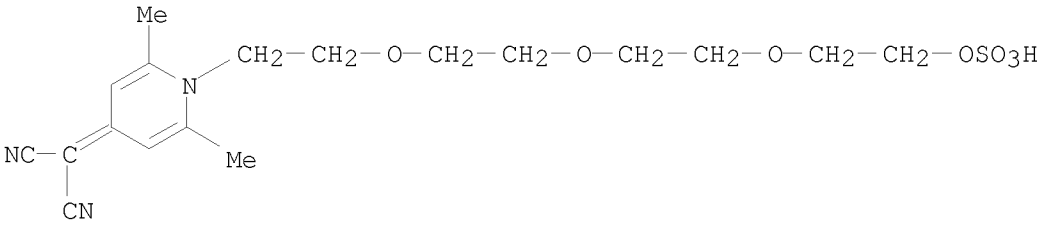
● Li

RN 863406-78-4 CAPLUS
CN Propanedinitrile, 2-[1-[3-[bis[2-(sulfooxy)ethyl]amino]propyl]-2,6-dimethyl-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



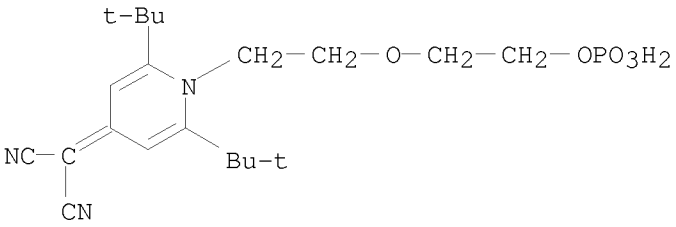
● Na

RN 863406-79-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-[2-[2-[2-(sulfooxy)ethoxy]ethoxy]ethoxy]ethyl]-4(1H)-pyridinylidene]-, potassium salt (1:1) (CA INDEX NAME)



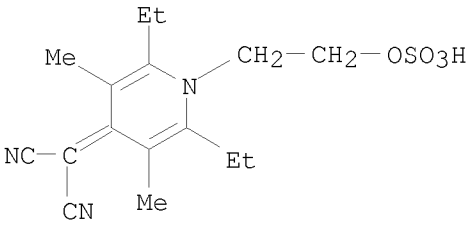
● K

RN 863406-80-8 CAPLUS
CN Propanedinitrile, 2-[2,6-bis(1,1-dimethylethyl)-1-[2-[2-(phosphonooxy)ethoxy]ethyl]-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



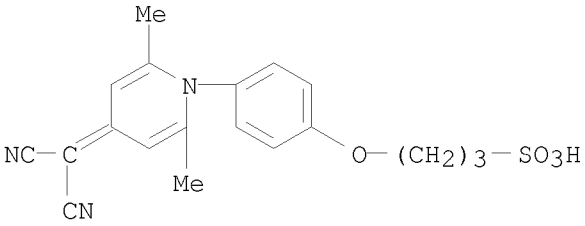
● Na

RN 863406-81-9 CAPLUS
CN Propanedinitrile, 2-[2,6-diethyl-3,5-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, potassium salt (1:1) (CA INDEX NAME)



● K

RN 863406-99-9 CAPLUS
CN 1-Propanesulfonic acid, 3-[4-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]phenoxy]-, potassium salt (1:1) (CA INDEX NAME)

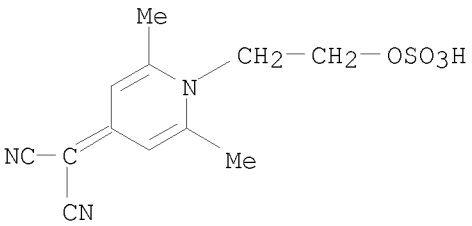


● K

RN 863407-00-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, compd. with 2-amino-2-methyl-1-propanol (1:1) (CA INDEX NAME)

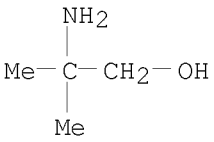
CM 1

CRN 863406-55-7
CMF C12 H13 N3 O4 S

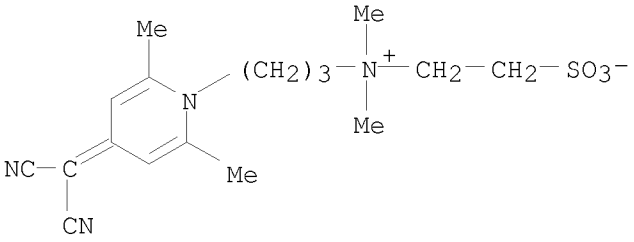


CM 2

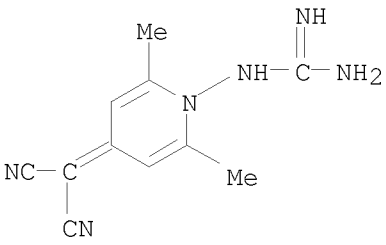
CRN 124-68-5
CMF C4 H11 N O



RN 863407-01-6 CAPLUS
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N,N,2,6-tetramethyl-N-(2-sulfoethyl)-, inner salt (CA INDEX NAME)

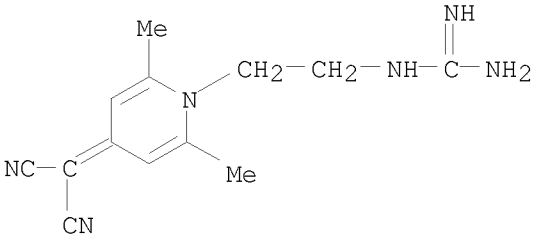


RN 863407-02-7 CAPLUS
CN Guanidine, N-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, hydrochloride (1:1) (CA INDEX NAME)



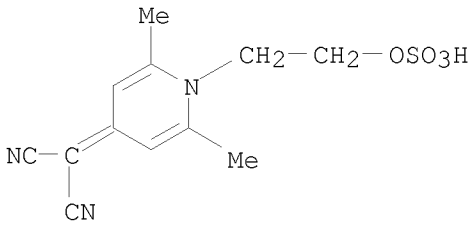
● HCl

RN 863407-03-8 CAPLUS
CN Guanidine, N-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethyl]-, hydrochloride (1:1) (CA INDEX NAME)



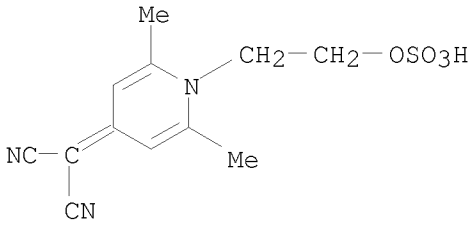
● HCl

RN 924726-36-3 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, ammonium salt (1:1) (CA INDEX NAME)



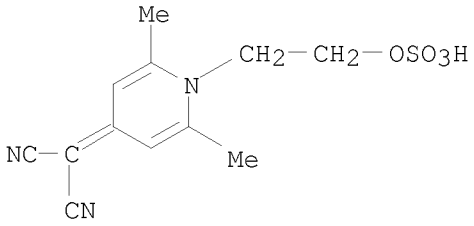
● NH_3

RN 924726-37-4 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, lithium salt (1:1) (CA INDEX NAME)



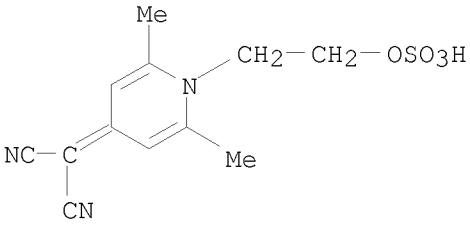
● Li

RN 924726-38-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, magnesium salt (2:1) (CA INDEX NAME)



● 1/2 Mg

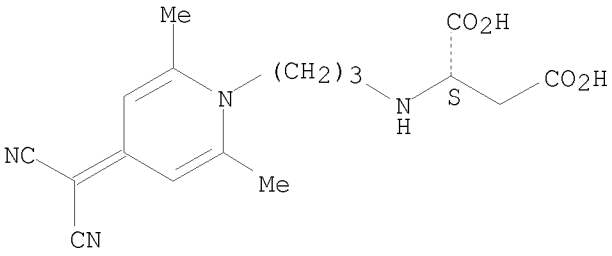
RN 924726-39-6 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, calcium salt (2:1) (CA INDEX NAME)



●1/2 Ca

RN 924726-40-9 CAPLUS
CN L-Aspartic acid, N-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]propyl]-, sodium salt (1:2) (CA INDEX NAME)

Absolute stereochemistry.

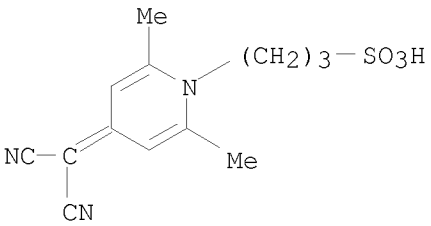


●2 Na

RN 924726-42-1 CAPLUS
CN 1(4H)-Pyridinepropanesulfonic acid, 4-(dicyanomethylene)-2,6-dimethyl-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (CA INDEX NAME)

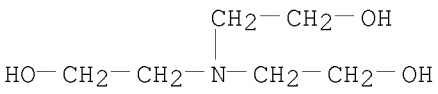
CM 1

CRN 863477-45-6
CMF C13 H15 N3 O3 S



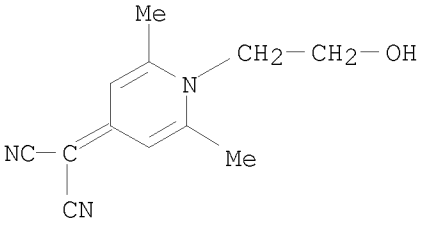
CM 2

CRN 102-71-6
CMF C6 H15 N O3

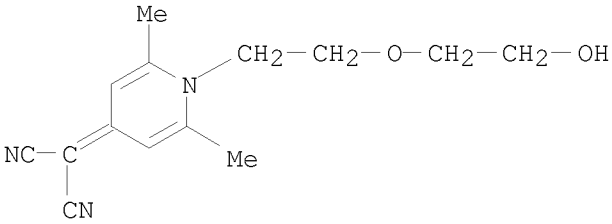


IT 403830-93-3P 863406-52-4P 863406-57-9P
863406-59-1P 863406-61-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and compns. of ionic 1,4-dihydropyridine UV-A cosmetic or dermatol. sunscreens)

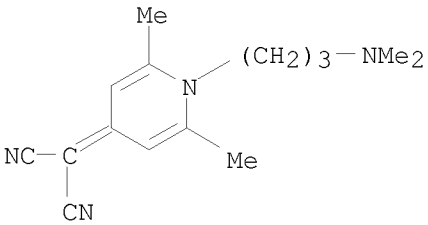
RN 403830-93-3 CAPLUS
CN Propanedinitrile, 2-[1-(2-hydroxyethyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



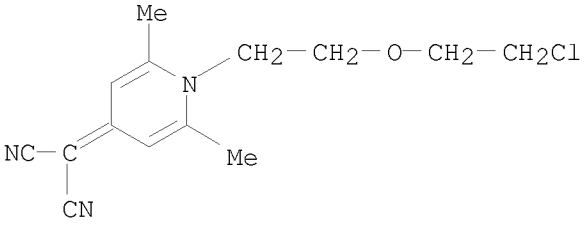
RN 863406-52-4 CAPLUS
CN Propanedinitrile, 2-[1-[2-(2-hydroxyethoxy)ethyl]-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



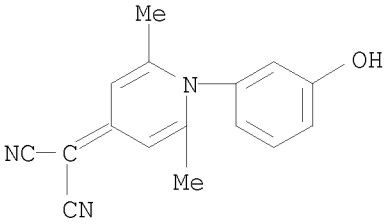
RN 863406-57-9 CAPLUS
CN Propanedinitrile, 2-[1-[3-(dimethylamino)propyl]-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 863406-59-1 CAPLUS
CN Propanedinitrile, 2-[1-[2-(2-chloroethoxy)ethyl]-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 863406-61-5 CAPLUS
CN Propanedinitrile, 2-[1-(3-hydroxyphenyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:1075592 CAPLUS
DOCUMENT NUMBER: 143:372818
TITLE: UV absorbing chromophores covalently bonded to hyperbranched polymers for sunscreens
INVENTOR(S): Poschalko, Alexander; Huber, Ulrich; Schehlmann, Volker
PATENT ASSIGNEE(S): DSM Ip Assets B. V., Neth.
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005092282	A1	20051006	WO 2005-EP3117	20050323 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005226922	A1	20051006	AU 2005-226922	20050323 <--
AU 2005226922	B2	20100304		
EP 1727515	A1	20061206	EP 2005-716337	20050323 <--
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,				

IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

CN 1937999	A	20070328	CN 2005-80009487		20050323 <--
JP 2007535588	T	20071206	JP 2007-504356		20050323 <--
IN 2006DN05063	A	20070713	IN 2006-DN5063		20060901 <--
KR 2007001199	A	20070103	KR 2006-719628		20060922 <--
US 20080081025	A1	20080403	US 2006-593486		20061017 <--
PRIORITY APPLN. INFO.:			EP 2004-7201	A	20040325 <--
			WO 2005-EP3117	W	20050323 <--

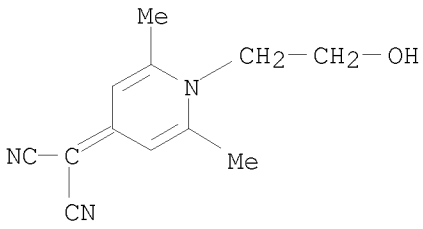
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides a conjugate comprising a hyperbranched polymer covalently bonded to at least three UV absorbing chromophores having an UV absorption maximum λmax ≥ 270 nm. The conjugate is an effective and safe sunscreen which can advantageously be used in cosmetic compns. For example, poly(glycerol-b-propylene oxide) (5.0 g, 4.6 mmol) was activated with methanesulfonyl chloride (3.75 mL, 48.5 mmol) to afford 7.5 g mesylated poly(glycerol-b-propylene oxide). A polymeric UV filter was obtained by attaching 8.9 g of 4-(1,3-benzoxazol-2-yl)phenol to 7.48 g of the mesylated polymer to yield 4.82 g of the hyperbranched polymer chromophore with the theor. chromophore content of 64%. A composition was prepared by mixing the hyperbranched polymer chromophore 5.0 g, Brij 72 2.0 g, Brij 721 2.0 g, Lanette O 2.0 g, Estol GMM 3650 2.0 g, BHT 0.05 g, and Phenonip 0.8 g at 80°, adding a preheated solution of glycerin 4.0 g and EDTA BD 0.1 g in water 62.95 g, and subsequently 10% aqueous KOH 0.1 g as well as Sepigel 305 1.0 g. An average SPF was 6.6, compared to 6.8 of Parsol MCX.

IT 403830-93-3DP, reaction products with glycerol-propylene oxide block polymers
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(UV absorbing chromophores covalently bonded to hyperbranched polymers for sunscreens)

RN 403830-93-3 CAPLUS

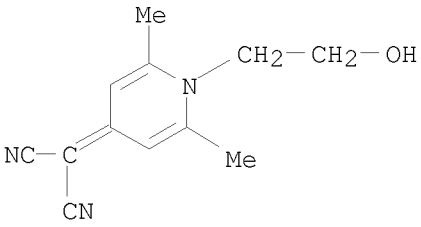
CN Propanedinitrile, 2-[1-(2-hydroxyethyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



IT 403830-93-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(UV absorbing chromophores covalently bonded to hyperbranched polymers for sunscreens)

RN 403830-93-3 CAPLUS

CN Propanedinitrile, 2-[1-(2-hydroxyethyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:962216 CAPLUS
DOCUMENT NUMBER: 143:253492
TITLE: Preparation of ionic UVA sunscreens
INVENTOR(S): Berg-Schultz, Katja; Huber, Ulrich; Sprenger, Daniel
PATENT ASSIGNEE(S): DSM Ip Assets B. V., Neth.
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005080341	A1	20050901	WO 2005-EP1379	20050211 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005215881	A1	20050901	AU 2005-215881	20050211 <--
EP 1716117	A1	20061102	EP 2005-701401	20050211 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1918126	A	20070221	CN 2005-80004920	20050211 <--
JP 2007523078	T	20070816	JP 2006-552555	20050211 <--
IN 2006CN02915	A	20070608	IN 2006-CN2915	20060809 <--
KR 2006123540	A	20061201	KR 2006-716292	20060811 <--
US 20070275090	A1	20071129	US 2007-589051	20070326 <--
PRIORITY APPLN. INFO.:			EP 2004-3294 A	20040213 <--
			WO 2005-EP1379 W	20050211 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:253492

AB The present invention relates to novel 1,4-dihydropyridine derivs., to novel cosmetic or dermatol. sunscreen compns. containing these derivs. and the use of these derivs. for photoprotecting human skin and/or hair against UV radiation, in particular solar radiation. Thus, a 4-dicaynomethylene-2,6-dimethyl-1,4-dihydropyridine-N(ethoxysulfate ester monosodium salt) was prepared in a series of steps starting from 4-dicyanomethylene-4H-pyran. The above product (3%) was used to form a sunscreen formulation.

IT 863406-63-7 863406-64-8 863406-65-9
863406-66-0 863406-67-1 863406-68-2
863406-69-3 863406-70-6 863406-72-8
863406-73-9 863406-74-0 863406-75-1
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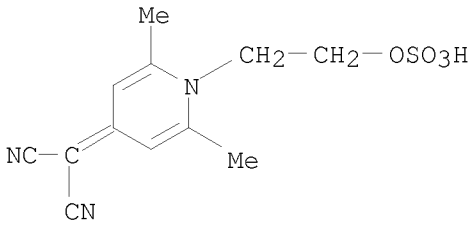
863406-79-5 863406-80-8 863406-81-9
863406-82-0 863406-99-9 863407-00-5
863407-01-6 863407-02-7 863407-03-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(ionic UVA sunscreens and compns. containing them)

RN 863406-63-7 CAPLUS

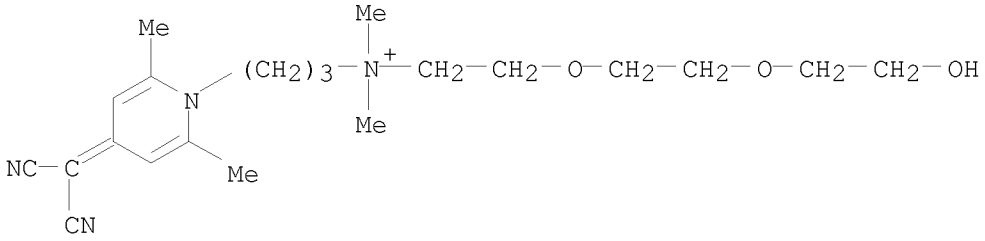
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, potassium salt (1:1) (CA INDEX NAME)



● K

RN 863406-64-8 CAPLUS

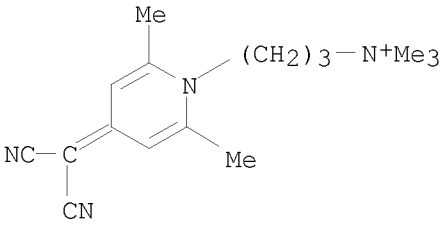
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]-N,N,2,6-tetramethyl-, chloride (1:1) (CA INDEX NAME)



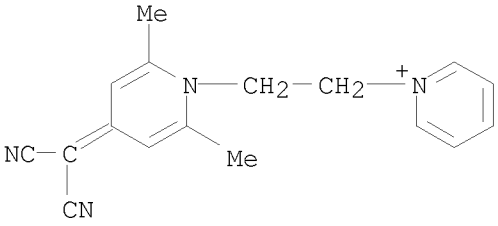
● Cl^-

RN 863406-65-9 CAPLUS

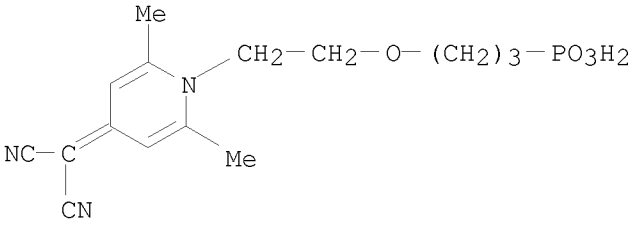
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N,N,N,2,6-pentamethyl-, iodide (1:1) (CA INDEX NAME)



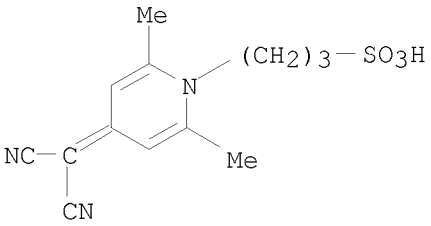
RN 863406-66-0 CAPLUS
CN Pyridinium, 1-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethyl]-, bromide (1:1) (CA INDEX NAME)



RN 863406-67-1 CAPLUS
CN Phosphonic acid, P-[3-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]propyl]-, sodium salt (1:1) (CA INDEX NAME)

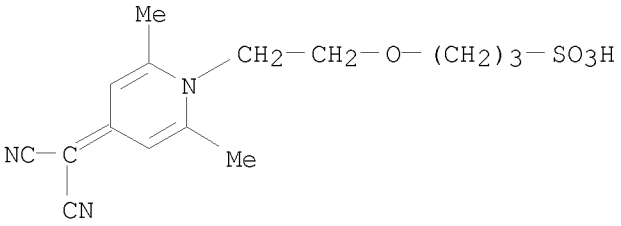


RN 863406-68-2 CAPLUS
CN 1(4H)-Pyridinepropanesulfonic acid, 4-(dicyanomethylene)-2,6-dimethyl-, potassium salt (1:1) (CA INDEX NAME)



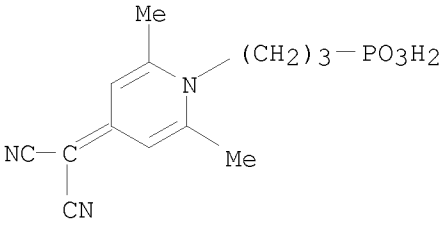
● K

RN 863406-69-3 CAPLUS
CN 1-Propanesulfonic acid, 3-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]-, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 863406-70-6 CAPLUS
CN Phosphonic acid, P-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]propyl]-, potassium salt (1:2) (CA INDEX NAME)

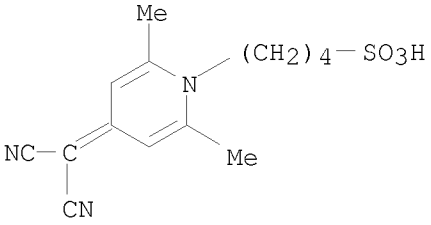


● 2 K

RN 863406-72-8 CAPLUS
CN 1(4H)-Pyridinebutanesulfonic acid, 4-(dicyanomethylene)-2,6-dimethyl-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (CA INDEX NAME)

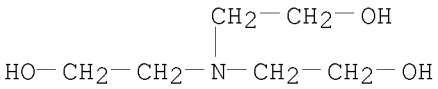
CM 1

CRN 863406-71-7
CMF C14 H17 N3 O3 S



CM 2

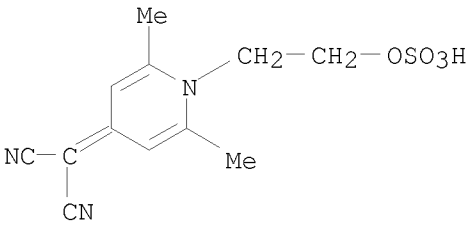
CRN 102-71-6
CMF C6 H15 N O3



RN 863406-73-9 CAPLUS
CN Propanedinitrile, [2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, compd. with 2,2',2''-nitrilotris[ethanol] (1:1) (CA INDEX NAME)

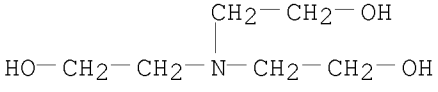
CM 1

CRN 863406-55-7
CMF C12 H13 N3 O4 S

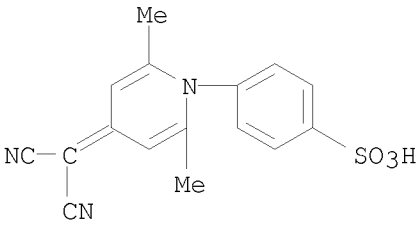


CM 2

CRN 102-71-6
CMF C6 H15 N O3

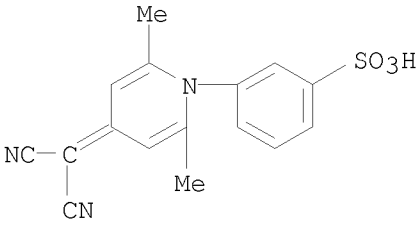


RN 863406-74-0 CAPLUS
CN Benzenesulfonic acid, 4-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, sodium salt (1:1) (CA INDEX NAME)



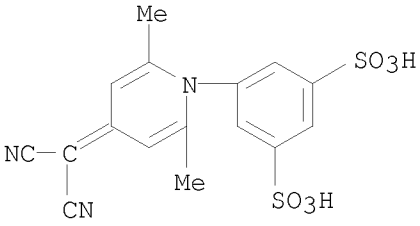
● Na

RN 863406-75-1 CAPLUS
CN Benzenesulfonic acid, 3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, potassium salt (1:1) (CA INDEX NAME)



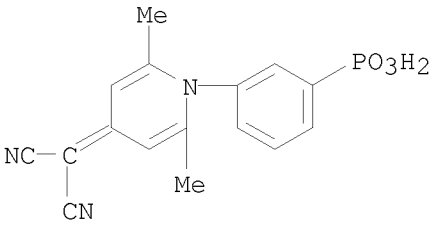
● K

RN 863406-76-2 CAPLUS
CN 1,3-Benzenedisulfonic acid, 5-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, potassium salt (1:1) (CA INDEX NAME)



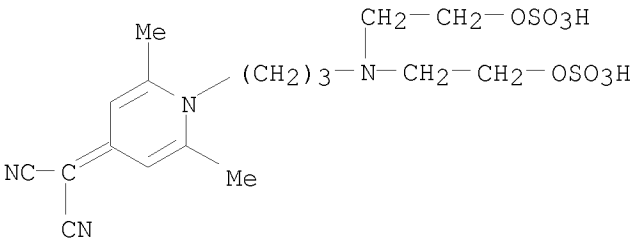
● K

RN 863406-77-3 CAPLUS
CN Phosphonic acid, P-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]phenyl]-, lithium salt (1:1) (CA INDEX NAME)



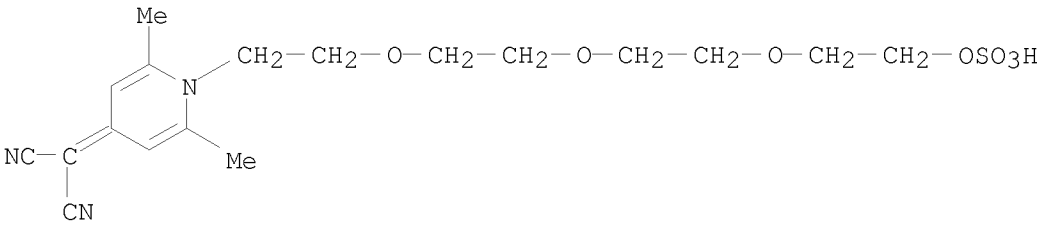
● Li

RN 863406-78-4 CAPLUS
CN Propanedinitrile, 2-[1-[3-[bis[2-(sulfooxy)ethyl]amino]propyl]-2,6-dimethyl-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



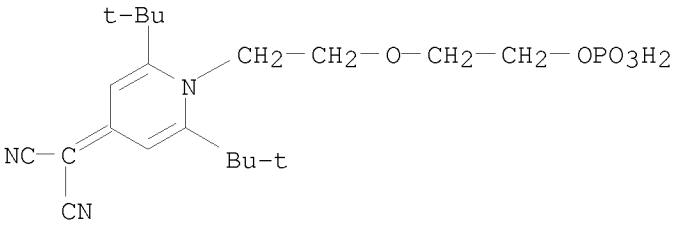
● Na

RN 863406-79-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-[2-[2-[2-(sulfooxy)ethoxy]ethoxy]ethoxy]ethyl]-4(1H)-pyridinylidene]-, potassium salt (1:1) (CA INDEX NAME)



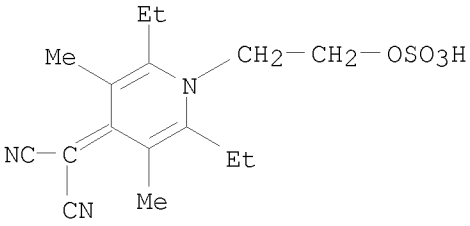
● K

RN 863406-80-8 CAPLUS
CN Propanedinitrile, 2-[2,6-bis(1,1-dimethylethyl)-1-[2-[2-(phosphonooxy)ethoxy]ethyl]-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



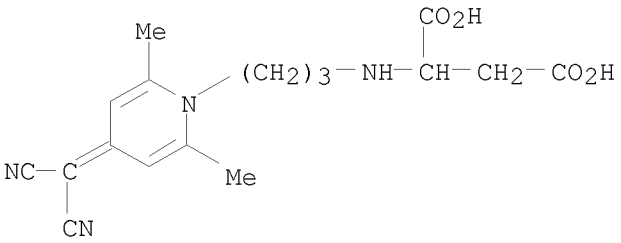
● Na

RN 863406-81-9 CAPLUS
CN Propanedinitrile, 2-[2,6-diethyl-3,5-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, potassium salt (1:1) (CA INDEX NAME)



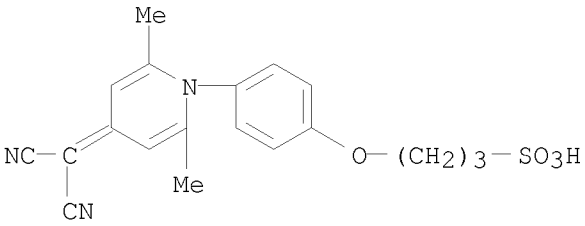
● K

RN 863406-82-0 CAPLUS
CN Aspartic acid, N-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]propyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

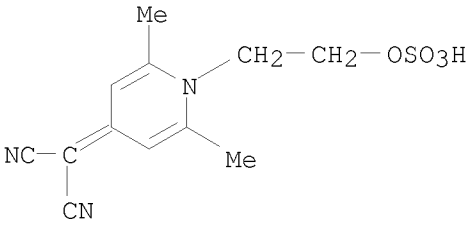
RN 863406-99-9 CAPLUS
CN 1-Propanesulfonic acid, 3-[4-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]phenoxy]-, potassium salt (1:1) (CA INDEX NAME)



RN 863407-00-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, compd. with 2-amino-2-methyl-1-propanol (1:1) (CA INDEX NAME)

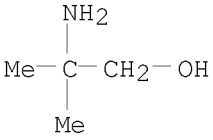
CM 1

CRN 863406-55-7
CMF C12 H13 N3 O4 S

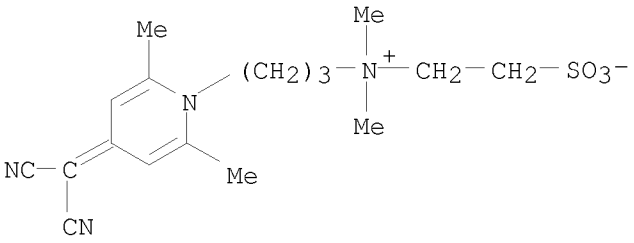


CM 2

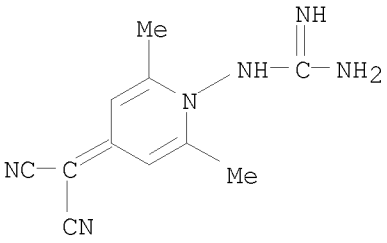
CRN 124-68-5
CMF C4 H11 N O



RN 863407-01-6 CAPLUS
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N,N,2,6-tetramethyl-N-(2-sulfoethyl)-, inner salt (CA INDEX NAME)

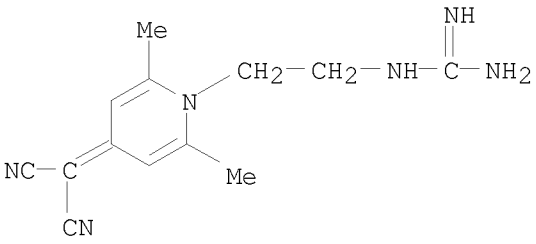


RN 863407-02-7 CAPLUS
CN Guanidine, N-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]-, hydrochloride (1:1) (CA INDEX NAME)



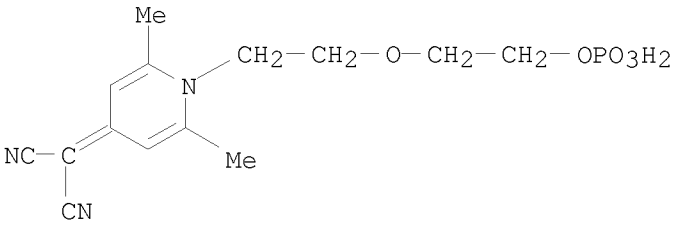
● HCl

RN 863407-03-8 CAPLUS
CN Guanidine, N-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethyl]-, hydrochloride (1:1) (CA INDEX NAME)



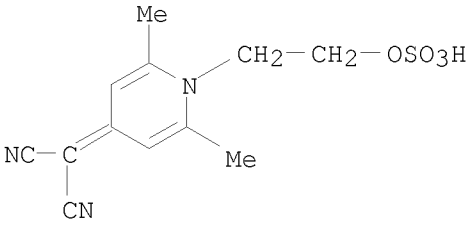
● HCl

IT 863406-54-6P 863406-56-8P 863406-58-0P
863406-60-4P 863406-62-6P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ionic UVA sunscreens and compns. containing them)
RN 863406-54-6 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-[2-(phosphonooxy)ethoxy]ethyl]-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



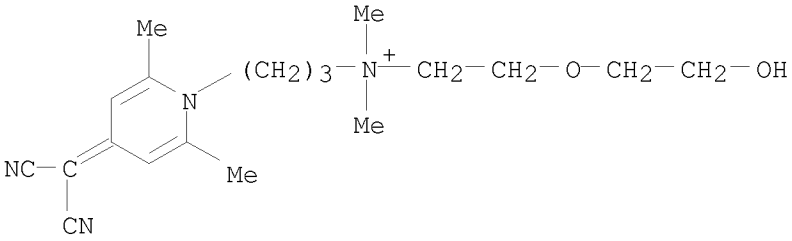
● Na

RN 863406-56-8 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]-, sodium salt (1:1) (CA INDEX NAME)



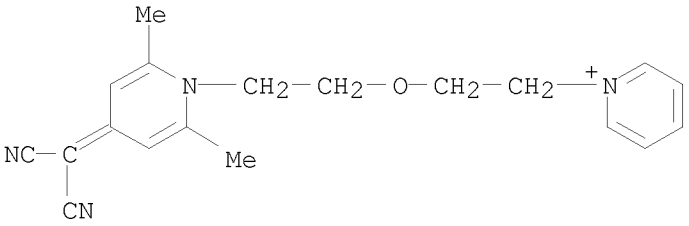
● Na

RN 863406-58-0 CAPLUS
CN 1(4H)-Pyridinepropanaminium, 4-(dicyanomethylene)-N-[2-(2-hydroxyethoxy)ethyl]-N,N,2,6-tetramethyl-, iodide (1:1) (CA INDEX NAME)



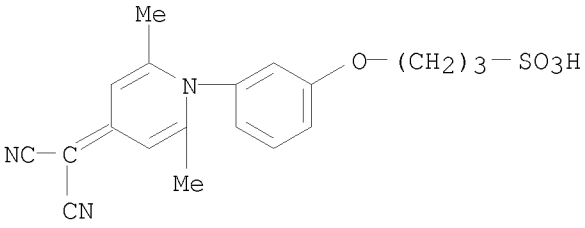
● I⁻

RN 863406-60-4 CAPLUS
CN Pyridinium, 1-[2-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]ethyl]-, chloride (1:1) (CA INDEX NAME)



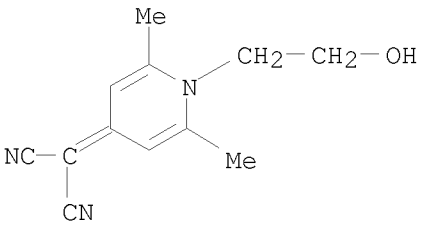
● Cl^-

RN 863406-62-6 CAPLUS
CN 1-Propanesulfonic acid, 3-[3-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]phenoxy]-, sodium salt (1:1) (CA INDEX NAME)

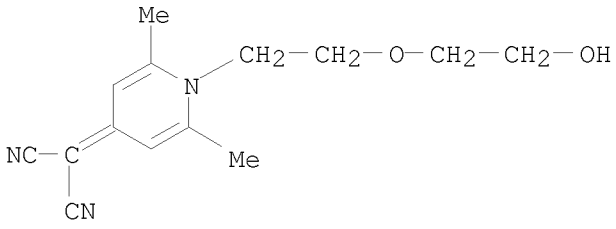


● Na

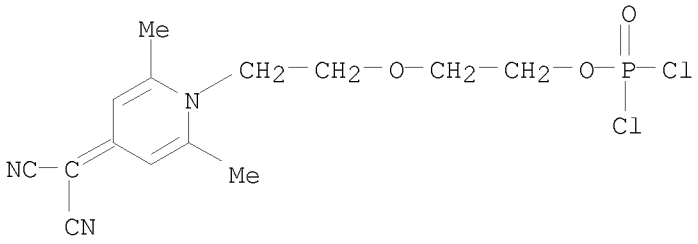
IT 403830-93-3P 863406-52-4P 863406-53-5P
863406-55-7P 863406-57-9P 863406-59-1P
863406-61-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ionic UVA sunscreens and compns. containing them)
RN 403830-93-3 CAPLUS
CN Propanedinitrile, 2-[1-(2-hydroxyethyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



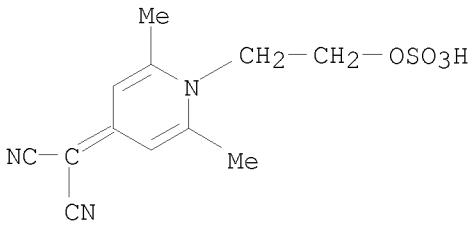
RN 863406-52-4 CAPLUS
CN Propanedinitrile, 2-[1-[2-(2-hydroxyethoxy)ethyl]-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



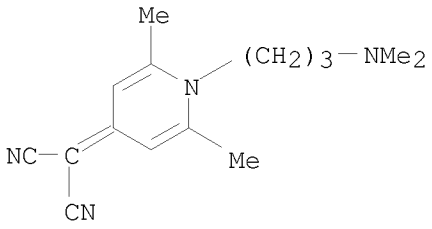
RN 863406-53-5 CAPLUS
CN Phosphorodichloridic acid, 2-[2-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]ethoxy]ethyl ester (9CI) (CA INDEX NAME)



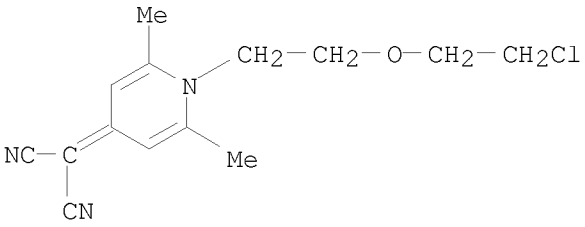
RN 863406-55-7 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[2-(sulfooxy)ethyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)



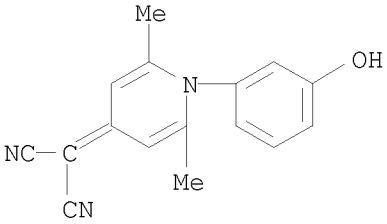
RN 863406-57-9 CAPLUS
CN Propanedinitrile, 2-[1-[3-(dimethylamino)propyl]-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 863406-59-1 CAPLUS
CN Propanedinitrile, 2-[1-[2-(2-chloroethoxy)ethyl]-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 863406-61-5 CAPLUS
CN Propanedinitrile, 2-[1-(3-hydroxyphenyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:523247 CAPLUS
DOCUMENT NUMBER: 143:65134
TITLE: Microcapsules with UV filter activity
INVENTOR(S): Berg-Schultz, Katja
PATENT ASSIGNEE(S): DSM IP Assets B. V., Neth.
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053631	A1	20050616	WO 2004-EP13734	20041202 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1722863	A1	20061122	EP 2004-803467	20041202 <--
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1889920	A	20070103	CN 2004-80036134	20041202 <--

JP 2007519617	T	20070719	JP 2006-541904		20041202	<--
IN 2006CN01952	A	20070608	IN 2006-CN1952		20060602	<--
KR 2006124606	A	20061205	KR 2006-711002		20060605	<--
US 20070190325	A1	20070816	US 2007-581511		20070227	<--
PRIORITY APPLN. INFO.:			EP 2003-27847	A	20031204	<--
			WO 2004-EP13734	W	20041202	<--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides a process for producing microcapsules with UV filter activity, wherein at least one type of crosslinkable chromophore with UV-A and/or UV-B and/or UV-C filter activity and optionally at least one type of crosslinkable monomer which does not have UV-A and/or UV-B and/or UV-C filter activity are subjected to a crosslinking reaction in the absence of non-crosslinkable chromophores with UV-A and/or UV-B and/or UV-C filter activity and microcapsules obtainable by this process. Thus, 2-[4-[2-(triethoxysilyl)prop-2-enyloxy]benzylidene]malonic acid di-Et ester (I) was prepared by the treatment of [[4-(2-propynyloxy)phenyl]methylene]propanedioic acid di-Et ester with triethoxysilane. Microcapsules were obtained from I and tetraethoxysilane. Sunscreens comprised I 10.00% in addition to the conventional sunscreen emulsion components.

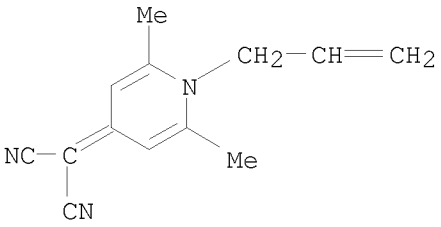
IT 853933-45-6 853933-46-7

RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)

(microcapsules with UV filter activity)

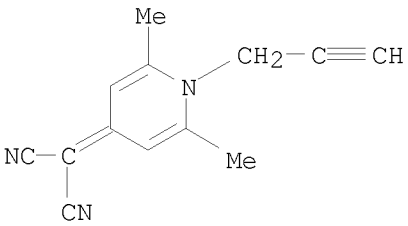
RN 853933-45-6 CAPLUS

CN Propanedinitrile, 2-[2,6-dimethyl-1-(2-propen-1-yl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 853933-46-7 CAPLUS

CN Propanedinitrile, 2-[2,6-dimethyl-1-(2-propyn-1-yl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



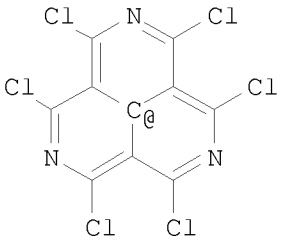
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

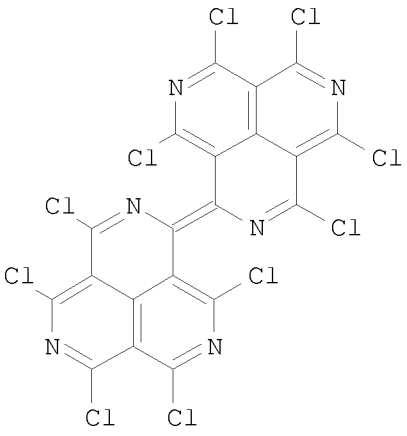
L5 ANSWER 6 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:295737 CAPLUS

DOCUMENT NUMBER: 143:26106
TITLE: Perchloro-2,5,8-triazaphenalenyl Radical
AUTHOR(S): Zheng, Shijun; Thompson, Joe D.; Tontcheva, Ana; Khan, Saeed I.; Rubin, Yves
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of California, Los Angeles, CA, 90095-1569, USA
SOURCE: Organic Letters (2005), 7(9), 1861-1863
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:26106
GI



I

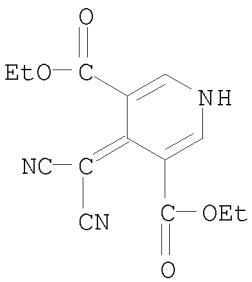


II

AB The unusually stable perchloro-2,5,8-triazaphenalenyl radical 1 and its twisted dechlorinated dimer 2 were synthesized and characterized by ESR spectroscopy and x-ray crystallog. The x-ray structure of dimer 2 shows that the double bond connecting the two triazaphenalene systems is strongly twisted. Dimer 2 has a dramatic color shift from the solid state to solution, which may be due to a change of the twisting angle between both states.

IT 852627-67-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(perchloro-2,5,8-triazaphenalenyl radical)

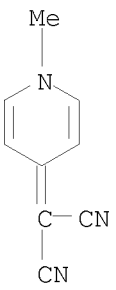
RN 852627-67-9 CAPLUS
CN 3,5-Pyridinedicarboxylic acid, 4-(dicyanomethylene)-1,4-dihydro-, 3,5-diethyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS

RECORD (12 CITINGS)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:670087 CAPLUS
DOCUMENT NUMBER: 141:429236
TITLE: Atomistic molecular modeling of electric field poling of nonlinear optical polymers
AUTHOR(S): Leahy, Megan R.; Hayden, L. Michael
CORPORATE SOURCE: Physics Department, University of Baltimore County, Baltimore, MD, 21250, USA
SOURCE: PMSE Preprints (2004), 91, 269-270
CODEN: PPMRA9; ISSN: 1550-6703
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB Fully atomistic mol. modeling methods were used to examine the elec. field-induced alignment of nonlinear optical (NLO) chromophores, methylpyridinemalonitrile (DNVMP) and DPNA embedded in PMMA host. The induced polar order was determined by calculating the average of cos3θ, where θ is the angle between the direction of the dipole moment of the chromophore and the direction of the applied elec. field. This order parameter was compared to that predicted by a non-interacting rigid gas model and to a model allowing for corrections due to intermol. electrostatic interactions. The ordering of the chromophores was studied as a function of chromophore concentration, size, and dipole moment.
IT 16344-72-2
RL: PRP (Properties)
(elec. field induced polar order of NLO chromophores in polymer dispersions vs. concentration and mol. size)
RN 16344-72-2 CAPLUS
CN Propanedinitrile, 2-(1-methyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:656538 CAPLUS
DOCUMENT NUMBER: 139:202103
TITLE: Sunscreen compositions as well as dihydropyridines and dihydropyranes
INVENTOR(S): Berg-Schultz, Katja
PATENT ASSIGNEE(S): Roche Vitamins A.-G., Switz.
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068183	A1	20030821	WO 2003-EP1049	20030204 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2473228	A1	20030821	CA 2003-2473228	20030204 <--
AU 2003206825	A1	20030904	AU 2003-206825	20030204 <--
AU 2003206825	B2	20070920		
EP 1474098	A1	20041110	EP 2003-704523	20030204 <--
EP 1474098	B1	20060802		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003007335	A	20041207	BR 2003-7335	20030204 <--
CN 1630504	A	20050622	CN 2003-803694	20030204 <--
CN 100563622	C	20091202		
JP 2005518425	T	20050623	JP 2003-567367	20030204 <--
AT 334724	T	20060815	AT 2003-704523	20030204 <--
ES 2269978	T3	20070401	ES 2003-704523	20030204 <--
IN 2004CN01768	A	20060224	IN 2004-CN1768	20040806 <--
IN 229280	A1	20090320		
US 20050019278	A1	20050127	US 2004-494500	20040917 <--
US 7611696	B2	20091103		
PRIORITY APPLN. INFO.:			EP 2002-2093 A	20020212 <--
			WO 2003-EP1049 W	20030204 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

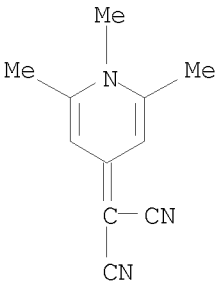
OTHER SOURCE(S): MARPAT 139:202103

AB Disclosed are 1,4-dihydropyridine and 1,4-dihydropyrane derivs. and novel cosmetic or dermatol. sunscreen compns. containing novel and/or known 1,4-dihydropyridine or 1,4-dihydropyrane derivs. which are useful for photoprotecting human skin and/or hair against UV radiation, in particular solar radiation, and the use of such 1,4-dihydropyridine and/or 1,4-dihydropyrane derivs. as UV-A screening agents, particularly in cosmetic and pharmaceutical compns. For example, 1-N-(2-ethylhexyl)-4-dicyanomethylene-2,6-dimethyl-1,4-dihydropyridine and ethyl(2,6-dimethylpyran-4-ylidene)cyanoacetate were prepared and included in cosmetics as sunscreen agents.

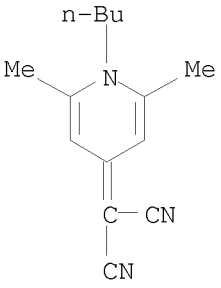
IT 16344-75-5P 49810-95-9P 582297-74-3P
582297-75-4P 582297-76-5P 582297-77-6P
582297-79-8P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sunscreens comprising dihydropyridines or dihydropyranes)

RN 16344-75-5 CAPLUS

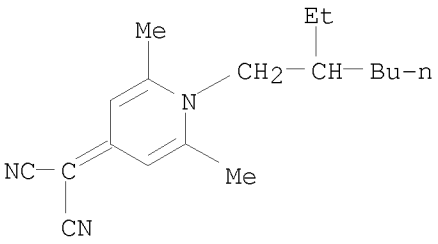
CN Propanedinitrile, 2-(1,2,6-trimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



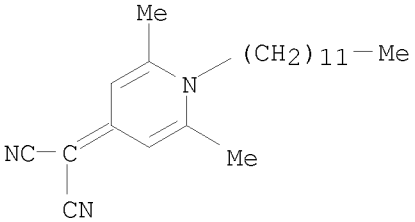
RN 49810-95-9 CAPLUS
CN Propanedinitrile, 2-(1-butyl-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



RN 582297-74-3 CAPLUS
CN Propanedinitrile, 2-[1-(2-ethylhexyl)-2,6-dimethyl-4(1H)-pyridinylidene]- (CA INDEX NAME)

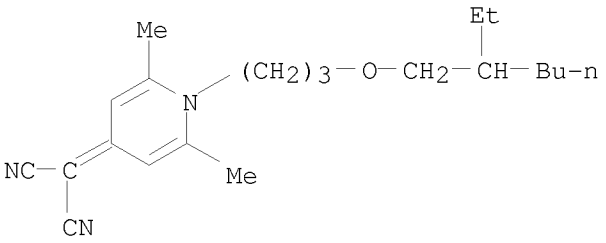


RN 582297-75-4 CAPLUS
CN Propanedinitrile, 2-(1-dodecyl-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)

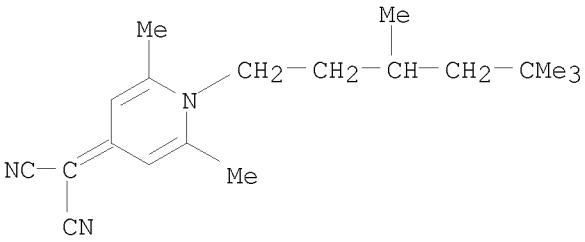


RN 582297-76-5 CAPLUS
CN Propanedinitrile, 2-[1-[3-[(2-ethylhexyl)oxy]propyl]-2,6-dimethyl-4(1H)-

pyridinylidene]- (CA INDEX NAME)

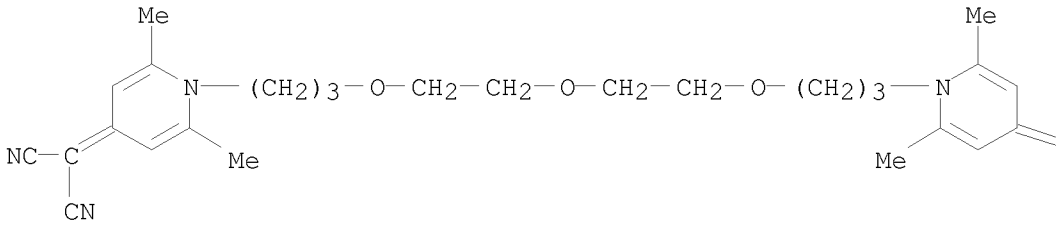


RN 582297-77-6 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-(3,5,5-trimethylhexyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)

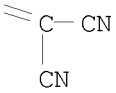


RN 582297-79-8 CAPLUS
CN Propanedinitrile, 2,2'-[oxybis[2,1-ethanediyloxy-3,1-propanediyl(2,6-dimethyl-1(4H)-pyridinyl-4-ylidene)]]bis- (9CI) (CA INDEX NAME)

PAGE 1-A



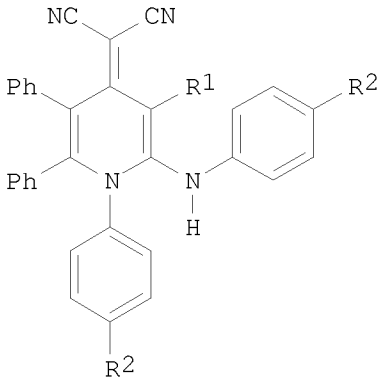
PAGE 1-B



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:608948 CAPLUS
DOCUMENT NUMBER: 139:395786
TITLE: Reaction of N1,N2-diarylamidines with (2,3-diphenylcyclopropen-1-ylidene)propanedinitrile: Synthesis of [2-arylamino-4(1H)-pyridinylidene]propanedinitriles
AUTHOR(S): Gomaa, Mohsen A.-M.; Doepp, Dietrich
CORPORATE SOURCE: Chemistry Department, Faculty of Science, Minia University, El-Minia, 61519, Egypt
SOURCE: Synthesis (2003), (10), 1545-1548
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:395786
GI

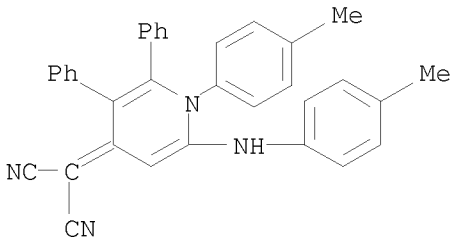


I

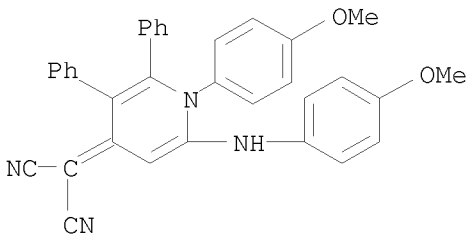
AB A series of [1-aryl-2-arylamino-5,6-diphenyl-4(1H)-pyridinylidene]propanedinitriles I (R1 = H, Me; R2 = Me, OMe; R1 = H; R2 = t-Bu) has been synthesized by the reaction of N1,N2-diarylamidines with (2,3-diphenylcyclopropen-1-ylidene)propanedinitrile. Structures of I have been assigned on the basis of NMR spectra and NOE expts.

IT 625835-36-1P 625835-37-2P 625835-38-3P
625835-39-4P 625835-40-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of (arylaminopyridinylidene)propanedinitriles via ring-opening of (diphenylcyclopropenylidene)propanedinitrile followed by [3 + 3]-cycloaddn. with diarylamidines and dehydrogenation)

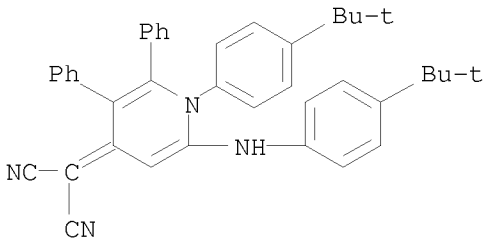
RN 625835-36-1 CAPLUS
CN Propanedinitrile, 2-[1-(4-methylphenyl)-6-[(4-methylphenyl)amino]-2,3-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



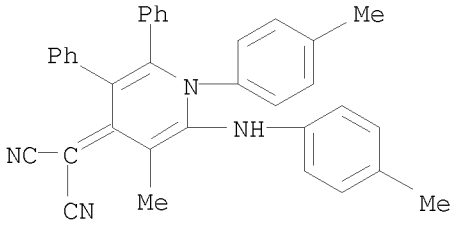
RN 625835-37-2 CAPLUS
CN Propanedinitrile, 2-[1-(4-methoxyphenyl)-6-[(4-methoxyphenyl)amino]-2,3-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



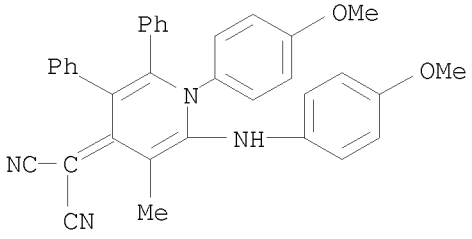
RN 625835-38-3 CAPLUS
CN Propanedinitrile, 2-[1-[4-(1,1-dimethylethyl)phenyl]-6-[[4-(1,1-dimethylethyl)phenyl]amino]-2,3-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 625835-39-4 CAPLUS
CN Propanedinitrile, 2-[3-methyl-1-(4-methylphenyl)-2-[(4-methylphenyl)amino]-5,6-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 625835-40-7 CAPLUS
CN Propanedinitrile, 2-[1-(4-methoxyphenyl)-2-[(4-methoxyphenyl)amino]-3-methyl-5,6-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



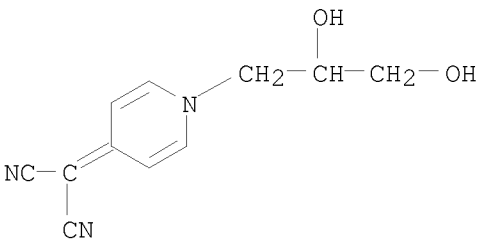
OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2001:664786 CAPLUS
DOCUMENT NUMBER: 136:20953
TITLE: Simple zwitterionic merocyanines as potential NLO chromophores
AUTHOR(S): Kay, A. J.; Woolhouse, A. D.; Gainsford, G. J.; Haskell, T. G.; Wyss, C. P.; Giffin, S. M.; McKinnie, I. T.; Barnes, T. H.
CORPORATE SOURCE: Industrial Research Limited, Lower Hutt, N. Z.
SOURCE: Journal of Materials Chemistry (2001), 11(9), 2271-2281
CODEN: JMACEP; ISSN: 0959-9428
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:20953

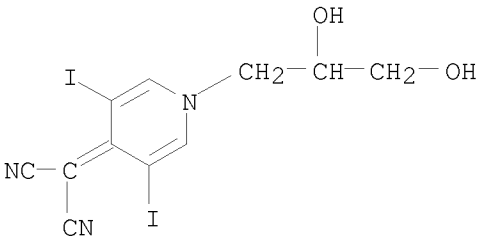
AB A suite of zwitterionic pyridylidene-based merocyanines that contain no interconnecting π-bridge between the donor and acceptor rings has been synthesized and their second-order NLO properties evaluated largely by semi-empirical computational methods (MOPAC 97/AM1). Contrary to expectation, increasing the degree of inter-ring twist (θ), at least up to 55°, in these new pyridylideneazolone chromophores is found to have little or no effect on the figure of merit [μβ(0)]. An X-ray crystallog. appraisal of one of these chromophores, , reveals however that the twist angle (albeit in the solid state) is greater than that predicted by computation and that all other features are consistent with the highly zwitterionic nature of these systems. In spite of this, a combination of factors-insufficient acceptor strength, insufficient extent of conjugation and perhaps insufficient twist angle, in particular - clearly leads to the low values of the quadratic hyperpolarizabilities. The trade-off between targeting a more modest hyperpolarizability term from a min. of π-conjugating framework between donor and acceptor (and therefore synthetic expediency) and seeking a moderate-to-high dipole moment has therefore resulted in only low figures of merit for these systems. Calcns. performed on a suite of readily accessible, isoelectronic cyanines, in which the acceptor is a stabilized cyclopentadienide carbocycle rather than a heterocycle, have revealed the potential that these systems have as NLO chromophores. Representative polymer-tetherable derivs. of this system have been prepared as have the corresponding TDI-based polyurethanes.

IT 377743-32-3P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(light tan dye; preparation of simple zwitterionic merocyanines as potential NLO chromophores)

RN 377743-32-3 CAPLUS
CN Propanedinitrile, 2-[1-(2,3-dihydroxypropyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



IT 377743-37-8P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(yellow dye; preparation of simple zwitterionic merocyanines as potential NLO chromophores)
RN 377743-37-8 CAPLUS
CN Propanedinitrile, 2-[1-(2,3-dihydroxypropyl)-3,5-diiodo-4(1H)-pyridinylidene]- (CA INDEX NAME)

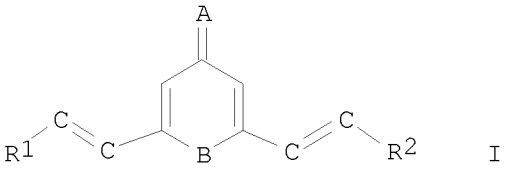


OS.CITING REF COUNT: 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2001:57003 CAPLUS
DOCUMENT NUMBER: 134:107761
TITLE: Material for organic electroluminescent component
INVENTOR(S): Tamano, Michiko; Onikubo, Shunichi
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001019946	A	20010123	JP 1999-189859	19990705 <--

PRIORITY APPLN. INFO.: JP 1999-189859 19990705 <--
OTHER SOURCE(S): MARPAT 134:107761
GI



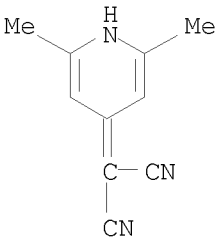
I

AB The invention refers to a material for organic electroluminescent components I [R1,3 = single ring or condensed polycyclic; A = O, or 1,2-substituted methylene where the substituents R3,4 = H, cyano, halo, alkyl-carbonyl, or alkoxycarbonyl, where both R3,4 may not be H].

IT 102654-01-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(material for organic electroluminescent component)

RN 102654-01-3 CAPLUS

CN Propanedinitrile, 2-(2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



L5 ANSWER 12 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1999:451746 CAPLUS

DOCUMENT NUMBER: 131:287731

TITLE: Highly transparent and birefringent chromophores for organic photorefractive materials

AUTHOR(S): Wortmann, R.; Glania, C.; Kramer, P.; Lukaszuk, K.; Matschiner, R.; Twieg, R. J.; You, F.

CORPORATE SOURCE: Institute of Physical Chemistry, University of Mainz, Mainz, D-55099, Germany

SOURCE: Chemical Physics (1999), 245(1-3), 107-120
CODEN: CMPHC2; ISSN: 0301-0104

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

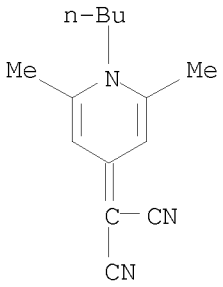
AB A series of chromophores for application in organic photorefractive (PR) materials is investigated by electrooptical absorption measurements (EOAM). This exptl. technique yields information on the transition dipole moment μag, the ground-state dipole moment μg, and the change of the dipole moment upon optical excitation Δμ within the intense charge-transfer band of the dyes. It is shown that the results of the EOAM experiment allow us to estimate the PR figures-of-merit (FOMs) of the chromophores by either perturbational two-level equations or Kramers-Kronig transformation. In particular, chromophores based on the heterocyclic dihydropyran and dihydropyridine groups in combination with dicyano and cyanocarboxy acceptor units were investigated. These donor-acceptor pairs yield chromophores close to the 'cyanine limit' that is characterized by a small dipole difference, but a large ground-state dipole moment and a large polarizability anisotropy. This leads to very high PR FOMs of the new PR chromophores that are demonstrated to be

superior to conventional second-order nonlinear optical chromophores in situations where the medium has a low glass transition.

IT 49810-95-9
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(transparent and birefringent chromophore for organic photorefractive materials)

RN 49810-95-9 CAPLUS

CN Propanedinitrile, 2-(1-butyl-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1998:490436 CAPLUS

DOCUMENT NUMBER: 129:142690

ORIGINAL REFERENCE NO.: 129:29025a,29028a

TITLE: Liquid-crystal display device

INVENTOR(S): Dyer, Daniel John; Twieg, Robert James

PATENT ASSIGNEE(S): International Business Machines Corporation, USA

SOURCE: U.S., 8 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5783114	A	19980721	US 1996-753841	19961202 <--

PRIORITY APPLN. INFO.: US 1996-753841 19961202 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

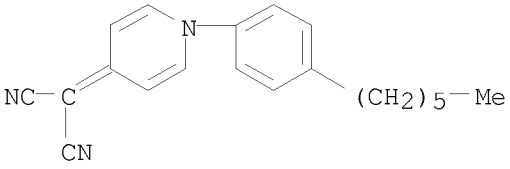
OTHER SOURCE(S): MARPAT 129:142690

AB The present invention provides a liquid-crystal display device comprising a light-modulating composition comprising pyrimidine- or pyridazine-type liquid crystals preferably admixed with other liquid crystals disposed between two electrodes.

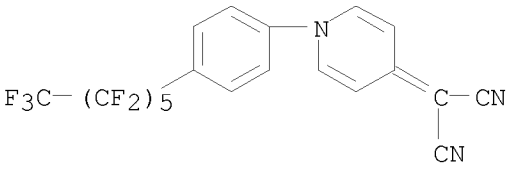
IT 204926-83-0 204926-84-1 204926-91-0
204926-97-6 204927-01-5 210641-60-4
210641-89-7 210641-96-6
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(liquid-crystal electrooptical display devices containing)

RN 204926-83-0 CAPLUS

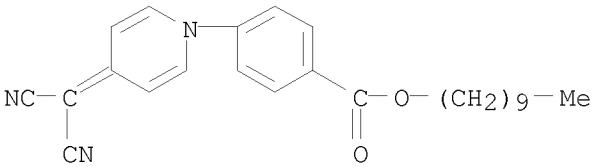
CN Propanedinitrile, 2-[1-(4-hexylphenyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



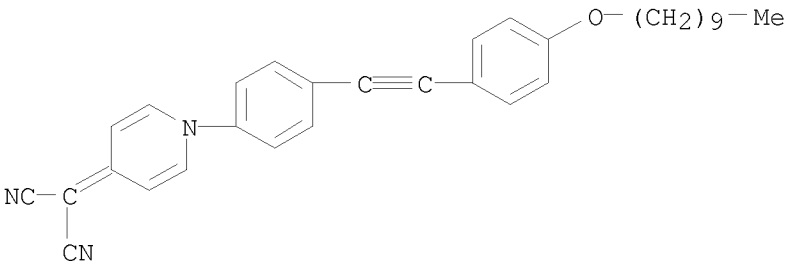
RN 204926-84-1 CAPLUS
CN Propanedinitrile, 2-[1-[4-(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 204926-91-0 CAPLUS
CN Benzoic acid, 4-[4-(dicyanomethylene)-1(4H)-pyridinyl]-, decyl ester (CA INDEX NAME)

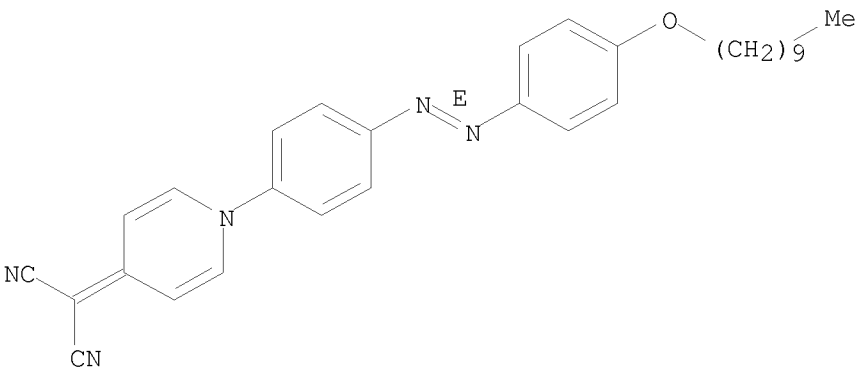


RN 204926-97-6 CAPLUS
CN Propanedinitrile, 2-[1-[4-[2-[4-(decyloxy)phenyl]ethynyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

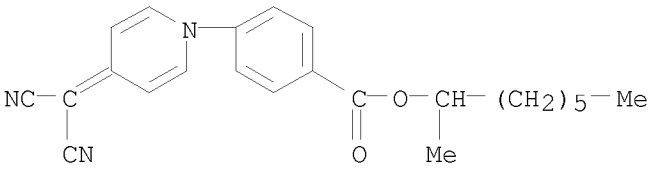


RN 204927-01-5 CAPLUS
CN Propanedinitrile, 2-[1-[4-[(1E)-2-[4-(decyloxy)phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

Double bond geometry as shown.

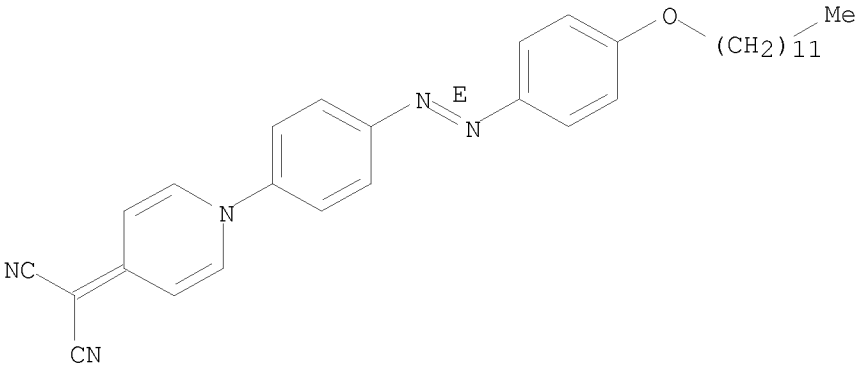


RN 210641-60-4 CAPLUS
CN Benzoic acid, 4-[4-(dicyanomethylene)-1(4H)-pyridinyl]-, 1-methylheptyl ester (CA INDEX NAME)



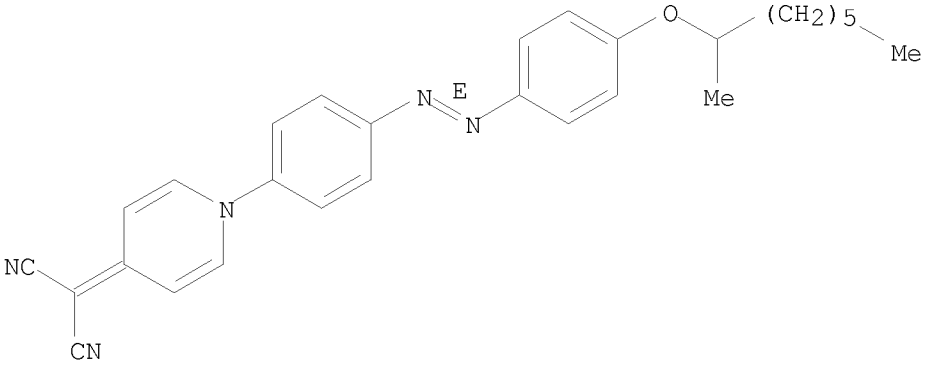
RN 210641-89-7 CAPLUS
CN Propanedinitrile, 2-[1-[4-[(1E)-2-[4-(dodecyloxy)phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

Double bond geometry as shown.



RN 210641-96-6 CAPLUS
CN Propanedinitrile, 2-[1-[4-[(1E)-2-[4-[(1-methylheptyl)oxy]phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

Double bond geometry as shown.



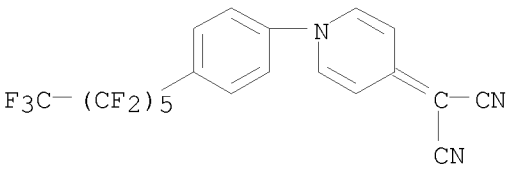
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1998:161539 CAPLUS
DOCUMENT NUMBER: 128:250986
ORIGINAL REFERENCE NO.: 128:49569a
TITLE: A new class of liquid crystals: methylene-1,4-dihydropyridines
AUTHOR(S): Dyer, Daniel J.; Lee, Victor Y.; Twieg, Robert J.
CORPORATE SOURCE: IBM Almaden Research Center, San Jose, CA, 95120, USA
SOURCE: Liquid Crystals (1998), 24(2), 271-281
CODEN: LICRE6; ISSN: 0267-8292
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

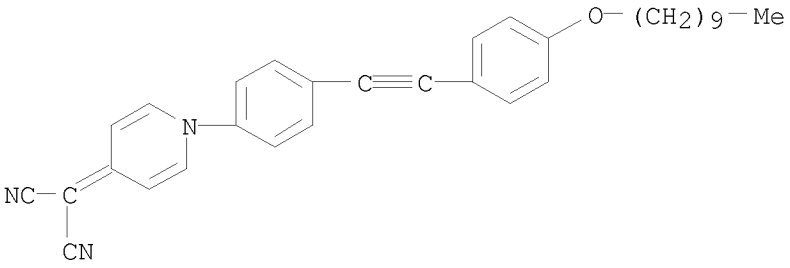
AB A group of liquid crystal materials which contain the novel methylene-1,4-dihydropyridine substructure were synthesized and their mesogenic properties examined Three main classes of liquid crystal compds. which differ in the structure of the aromatic core group (Ph, azobenzene and diphenylacetylene) attached to the N of the 1,4-dihydropyridine group were studied. The synthesis of the methylene-1,4-dihydropyridine group was accomplished in excellent yield by a Knoevenagel condensation of a 4-pyridone intermediate with an active methylene compound The liquid crystal materials prepared thus far which contain this methylene-1,4-dihydropyridine structure all possess broad enantiotropic smectic A phases and one example also possesses a tilted smectic C phase. These mesogens may possess useful properties such as high birefringence.

IT 204926-84-1P 204926-97-6P 204927-01-5P
204927-02-6P 204927-03-7P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and liquid crystal properties of)

RN 204926-84-1 CAPLUS
CN Propanedinitrile, 2-[1-[4-(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

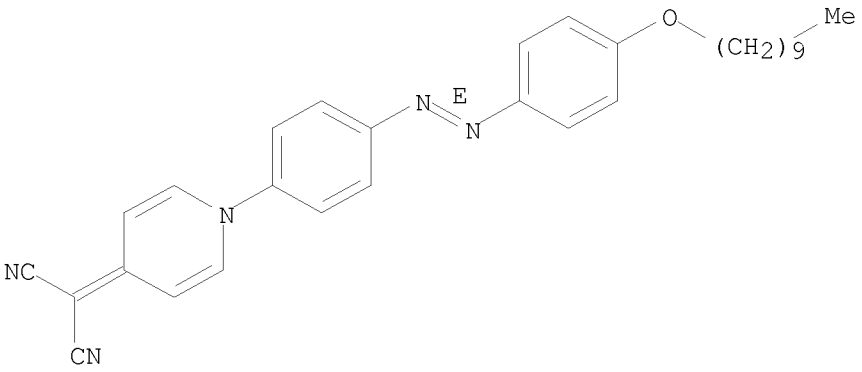


RN 204926-97-6 CAPLUS
CN Propanedinitrile, 2-[1-[4-[2-[4-(decyloxy)phenyl]ethynyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)



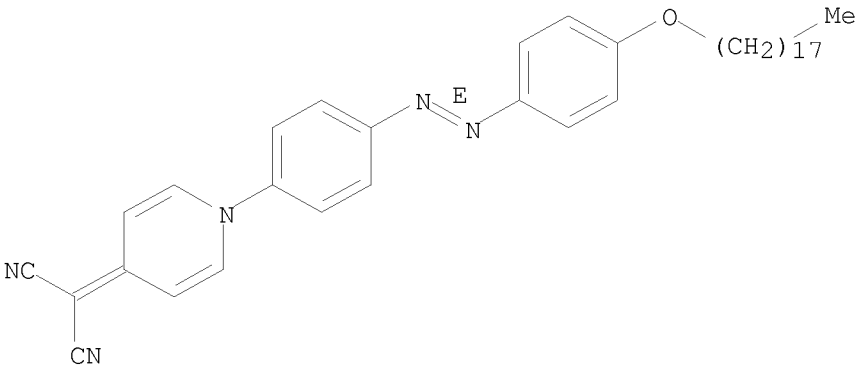
RN 204927-01-5 CAPLUS
CN Propanedinitrile, 2-[1-[4-[(1E)-2-[4-(decyloxy)phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

Double bond geometry as shown.



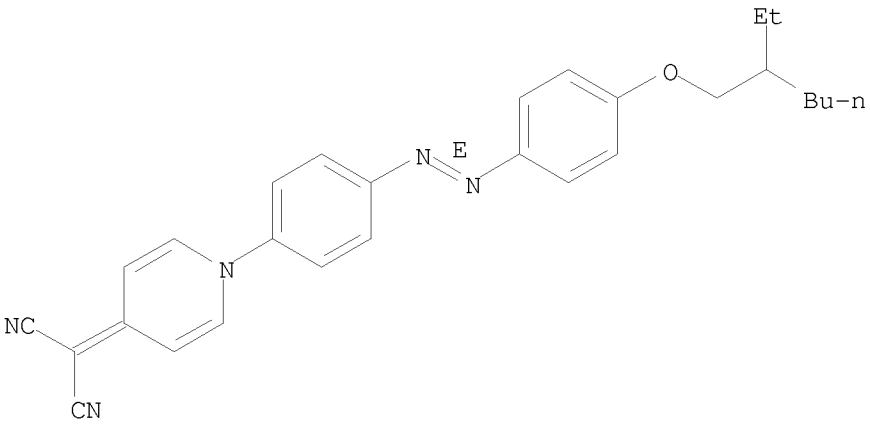
RN 204927-02-6 CAPLUS
CN Propanedinitrile, 2-[1-[4-[(1E)-2-[4-(octadecyloxy)phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

Double bond geometry as shown.

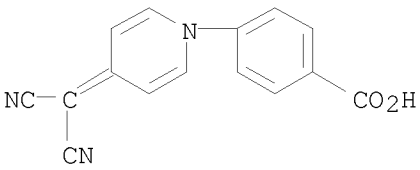


RN 204927-03-7 CAPLUS
CN Propanedinitrile, 2-[1-[4-[(1E)-2-[4-[(2-ethylhexyl)oxy]phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

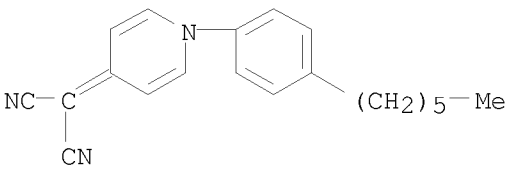
Double bond geometry as shown.



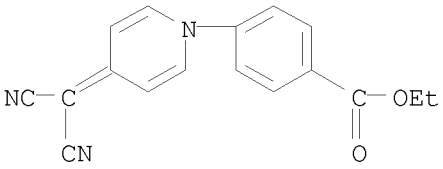
IT 204927-08-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reactant in decyl (dicyanomethylene)pyridinylbenzoate preparation)
RN 204927-08-2 CAPLUS
CN Benzoic acid, 4-[4-(dicyanomethylene)-1(4H)-pyridinyl]- (CA INDEX NAME)



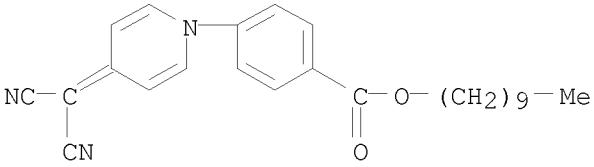
IT 204926-83-0P 204926-90-9P 204926-91-0P
204926-92-1P 204927-00-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal behavior of)
RN 204926-83-0 CAPLUS
CN Propanedinitrile, 2-[1-(4-hexylphenyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 204926-90-9 CAPLUS
CN Benzoic acid, 4-[4-(dicyanomethylene)-1(4H)-pyridinyl]-, ethyl ester (CA INDEX NAME)

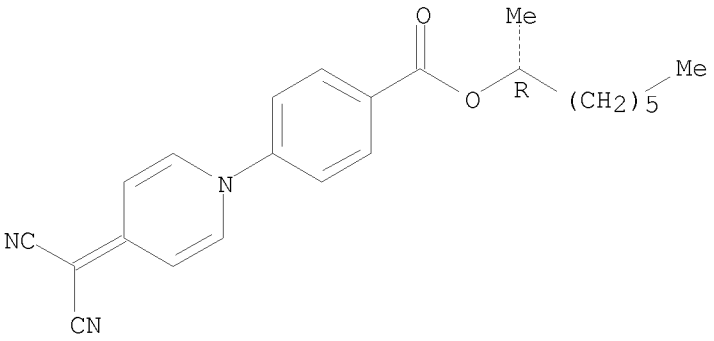


RN 204926-91-0 CAPLUS
CN Benzoic acid, 4-[4-(dicyanomethylene)-1(4H)-pyridinyl]-, decyl ester (CA INDEX NAME)

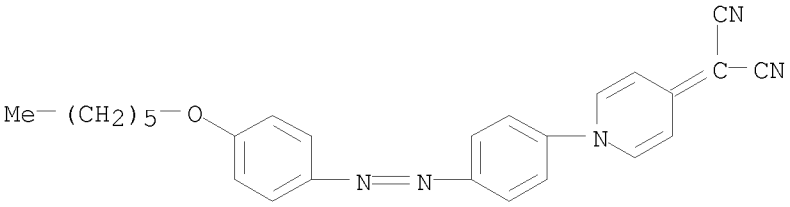


RN 204926-92-1 CAPLUS
CN Benzoic acid, 4-[4-(dicyanomethylene)-1(4H)-pyridinyl]-, (1R)-1-methylheptyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 204927-00-4 CAPLUS
CN Propanedinitrile, 2-[1-[4-[2-[4-(hexyloxy)phenyl]diazenyl]phenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)



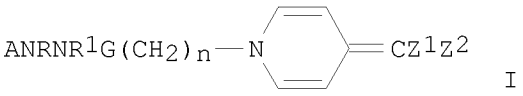
OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:314990 CAPLUS
DOCUMENT NUMBER: 126:299643
ORIGINAL REFERENCE NO.: 126:57885a,57888a
TITLE: Silver halide photographic element containing arylhydrazine
INVENTOR(S): Delprato, Ivano; Cogliolo, Isabella
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 763771	A1	19970319	EP 1995-114618	19950918 <--
R: DE, FR, GB, IT				
PRIORITY APPLN. INFO.:			EP 1995-114618	19950918 <--

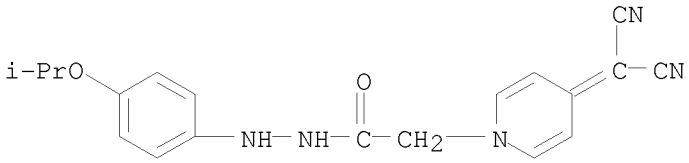
OTHER SOURCE(S): MARPAT 126:299643
GI



I

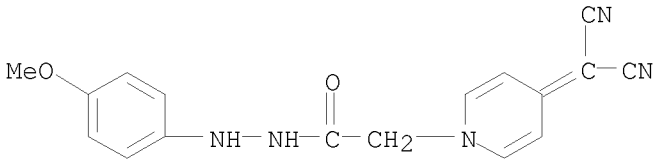
AB The present invention relates to a silver halide photog. element comprising a support bearing at least one silver halide emulsion layer including neg. surface latent image-type silver halide grains in reactive association (prior to imagewise exposure) with a hydrazine compound represented by the formula I (A = aryl; G = CO, SO, SO2, PO2, PO3, or C=NR2; R, R1, R2 = H, alkyl of 1 to 6 carbon atoms, alkylsulfinyl of 1 to 6 carbon atoms, or trifluoroacetyl; n = an integer from 1 to 3; Z1, Z2 = an electron-withdrawing group). The silver halide photog. element can be developed with a conventional alkaline rapid access-type developer solution, at a pH value lower than 11.0, containing a developing agent and an auxiliary developing agent to give high-contrast images.

IT 189037-69-2
RL: TEM (Technical or engineered material use); USES (Uses) (high-contrast black-and-white silver halide photog. films for lithog. containing)
RN 189037-69-2 CAPLUS
CN 1(4H)-Pyridineacetic acid, 4-(dicyanomethylene)-, 2-[4-(1-methylethoxy)phenyl]hydrazide (CA INDEX NAME)

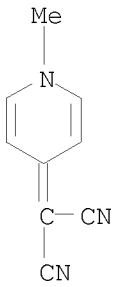


IT 189037-68-1
RL: TEM (Technical or engineered material use); USES (Uses) (preparation and use in high-contrast black-and-white silver halide photog. films for lithog.)

RN 189037-68-1 CAPLUS
CN 1(4H)-Pyridineacetic acid, 4-(dicyanomethylene)-, 2-(4-methoxyphenyl)hydrazide (CA INDEX NAME)



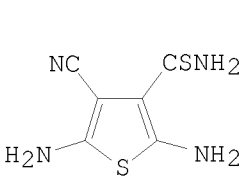
L5 ANSWER 16 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1991:101669 CAPLUS
DOCUMENT NUMBER: 114:101669
ORIGINAL REFERENCE NO.: 114:17325a,17328a
TITLE: Reaction of 4-methylthio- and 4-chloropyridinium salts with active methylene compounds
AUTHOR(S): Fujita, Reiko; Sakamura, Sachie; Tomisawa, Hiroshi
CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 981, Japan
SOURCE: Annual Report of the Tohoku College of Pharmacy (1989), (36), 117-22
CODEN: TYKNAQ; ISSN: 0495-7342
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Reaction of 4-methylthio- and 4-chloro-1-methylpyridinium iodides with active methylene compds. such as Me malonate, Me cyanoacetate, and malononitrile in THF in the presence of sodium hydride gave 1,4-dihydro-1-methyl-4-alkylidenepyridines in 61.4-98.5% yields. Similar reaction of quinolinium salts gave the resp. 4-alkylidenequinolines. The 1H NMR spectrum of 4-dycyanomethylene-1,4-dihydro-1-methylpyridine is compared with those of 1-methyl-4(1H)-pyridone and -thiopyridone.
IT 16344-72-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16344-72-2 CAPLUS
CN Propanedinitrile, 2-(1-methyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



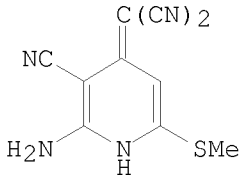
L5 ANSWER 17 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1990:591288 CAPLUS
DOCUMENT NUMBER: 113:191288
ORIGINAL REFERENCE NO.: 113:32385a,32388a
TITLE: Cyclizations of cyanothioacetamide in the presence of sulfur
AUTHOR(S): Gewald, K.; Schindler, R.
CORPORATE SOURCE: Sekt. Chem., Tech. Univ. Dresden, Dresden, DDR-8027,

	Ger. Dem. Rep.
SOURCE:	Journal fuer Praktische Chemie (Leipzig) (1990), 332(2), 223-8 CODEN: JPCEAO; ISSN: 0021-8383
DOCUMENT TYPE:	Journal
LANGUAGE:	German
OTHER SOURCE(S):	CASREACT 113:191288

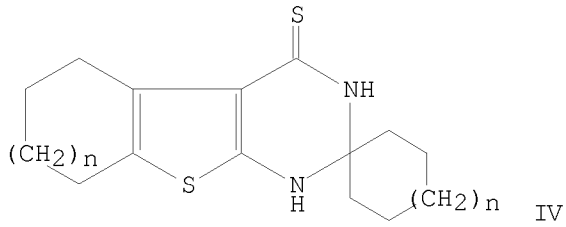
GI



II



III



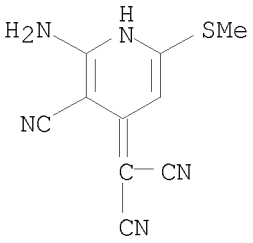
IV

AB NCCH2CSNH2 (I) reacts with S in the presence of Et3N to form the 2,5-diaminothiophene II and in the presence of EtONa the 1,4-dihydropyridine derivative III. II easily undergoes ring opening to give MeS(H2N)C:C(CN)C(CN):C(SMe)NH2. Catalyzed by amine I, cyclic ketones, and S give the 2-spiro[thieno[2,3-d]pyrimidine-4-thiones] IV (n = 1,2). I reacts with S and RNCS (R = Me, Ph, allyl) to form 4-amino-4-thiazoline-2-thiones and with S and CS2 to yield 5-amino-1,2-dithiol-3-thione derivs. II and the aminothiazolinethiones can be converted into 5,6-heterocondensed pyrimidine-4-thiones.

IT 130089-86-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 130089-86-0 CAPLUS

CN Propanedinitrile, 2-[2-amino-3-cyano-6-(methylthio)-4(1H)-pyridinylidene]- (CA INDEX NAME)

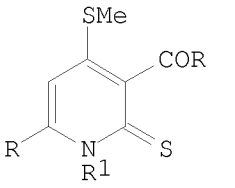


OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

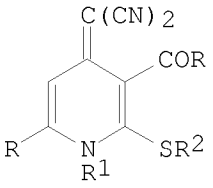
L5 ANSWER 18 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1989:173052 CAPLUS

DOCUMENT NUMBER: 110:173052
ORIGINAL REFERENCE NO.: 110:28701a,28704a
TITLE: Pyridinethiones. XV. 3-Methylthio-2-pentene-1,5-diones as synthons for 4-methylthio-2(1H)-pyridinethiones, and synthesis of 4-methylene-1,4-dihydropyridines
AUTHOR(S): Becher, Jan; Hansen, Poul
CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.
SOURCE: Journal of Heterocyclic Chemistry (1988), 25(4), 1129-34
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:173052
GI



II

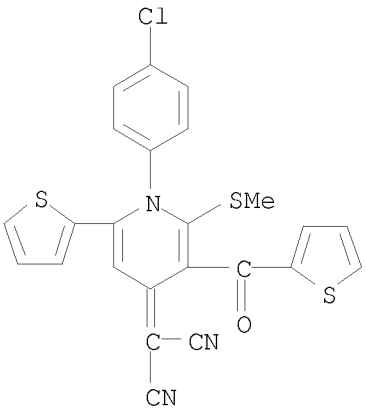


III

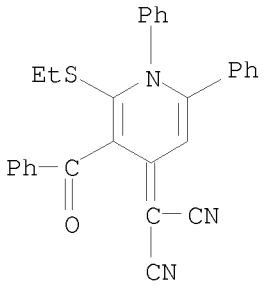
AB RCOCH:C(SMe)CH2COR (I; R = 2-thienyl, 2-furyl, Ph, 4-MeC6H4, 4-MeOC6H4) were treated with Me3COK in Me2SO and then R1NCS (R1 = Ph, 4-ClC6H4, 4-MeOC6H4, 2-MeC6H4, 4-BrC6H4), followed by aqueous HCl and heating in EtOH to give 16-78% the title pyridinethiones II (R, R1 = same). The S-alkylation of I with MeI or EtI and then condensation with NaCH(CN)2 gave methylenedihydropyridines III (R = Ph, 2-thienyl; R1 = Ph, 4-ClC6H4; R2 = Me, Et).

IT 120105-26-2P 120105-47-7P 120105-48-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

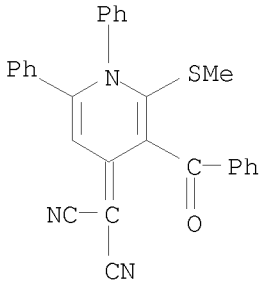
RN 120105-26-2 CAPLUS
CN Propanedinitrile, 2-[1-(4-chlorophenyl)-2-(methylthio)-6-(2-thienyl)-3-(2-thienylcarbonyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 120105-47-7 CAPLUS
CN Propanedinitrile, 2-[3-benzoyl-2-(ethylthio)-1,6-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 120105-48-8 CAPLUS
CN Propanedinitrile, 2-[3-benzoyl-2-(methylthio)-1,6-diphenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



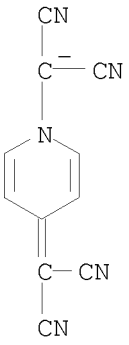
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L5 ANSWER 19 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1988:602509 CAPLUS
DOCUMENT NUMBER: 109:202509
ORIGINAL REFERENCE NO.: 109:33333a,33336a
TITLE: Crystal structures and electronic properties of organic conductors based on AzaTCNQ
AUTHOR(S): Urayama, Hatsumi; Inabe, Tamotsu; Mori, Takehiko; Maruyama, Yusei; Saito, Gunzi
CORPORATE SOURCE: Inst. Mol. Sci., Okazaki, 444, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1988), 61(6), 1831-6
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB AzaTCNQ ((4-dicyanomethyl-1-pyridinio)dicyanomethanide) is employed as an organic acceptor to form new organic conductors with a TTF family such as TTF, TMTTF, TMTSF, HMTTF, and DBTTF. Among them, TMTTF and TMTSF give 2:1 single crystals and the latter affords the most conductive complex, showing a metallic characteristic down to 150 K. This can be observed by measuring the thermoelec. power and the ESR spectra. A crystal structure anal. indicates that only TMTSF mols. stack to form one-dimensional conduction pathways, while AzaTCNQ mols. are arranged side-by-side and oriented almost perpendicular to the donor mols. There exists an orientational disorder of the nitrogen atom in the pyridine skeleton of an AzaTCNQ mol., which may be associated with the weak temperature dependence of the elec. conductivity
IT 93179-09-0
RL: USES (Uses)

(in preparation of azaTCNQ-based organic conductors)
RN 93179-09-0 CAPLUS
CN Pyridinium, 1-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

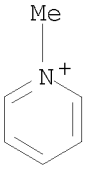
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

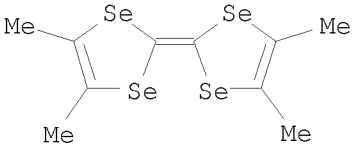
CRN 694-56-4
CMF C6 H8 N



IT 108793-76-6 108793-78-8
RL: PRP (Properties)
(organic conductors, structure and elec. properties of)
RN 108793-76-6 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(4,5-dimethyl-1,3-diselenol-2-ylidene)-1,3-diselenole (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 55259-49-9
CMF C10 H12 Se4

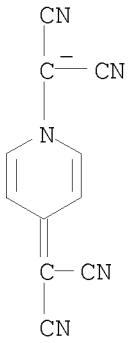


CM 2

CRN 108793-75-5
CMF C11 H4 N5 . C10 H12 Se4

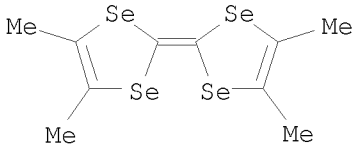
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

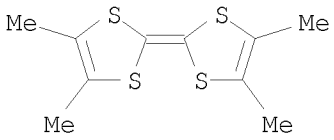
CRN 73261-22-0
CMF C10 H12 Se4
CCI RIS



RN 108793-78-8 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(4,5-dimethyl-1,3-dithiol-2-ylidene)-4,5-dimethyl-1,3-dithiole (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 50708-37-7
CMF C10 H12 S4



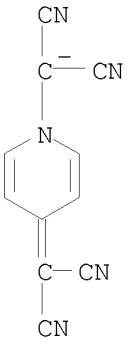
CM 2

CRN 108793-77-7

CMF C11 H4 N5 . C10 H12 S4

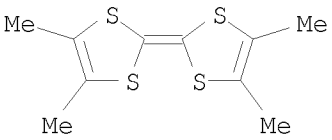
CM 3

CRN 84662-81-7
CMF C11 H4 N5



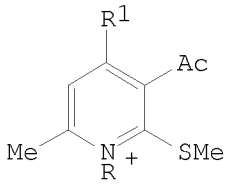
CM 4

CRN 52597-32-7
CMF C10 H12 S4
CCI RIS

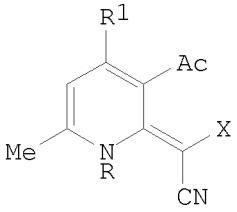


OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

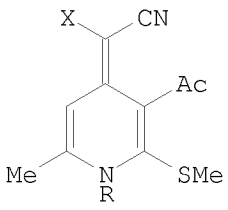
L5 ANSWER 20 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1987:617436 CAPLUS
DOCUMENT NUMBER: 107:217436
ORIGINAL REFERENCE NO.: 107:34875a,34878a
TITLE: Pyridinethiones. XIV. Reactions of 2- and 4-alkylthiopyridines; synthesis of 1,6- and 2,7-naphthyridines via 2-methylene-1,2-dihydro- and 4-methylene-1,4-dihydropyridines
AUTHOR(S): Asaad, Fahmy Mekhail; Becher, Jan; Moller, Jorgen; Varma, Karikath Sukumar
CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.
SOURCE: Synthesis (1987), (3), 301-4
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:217436
GI



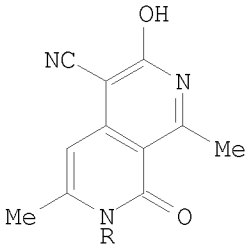
I



II



III



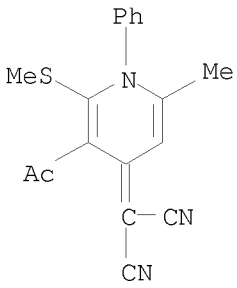
IV

AB Pyridinium iodides I (R = Ph, p-ClC6H4, o-tolyl, p-anisyl; R1 = Me, SMe, SCH2Ph, OMe) reacted with active methylene compds. XCH2CN (X = CN, CO2Et) to give 37-79% 8 methylenedihydropyridines II and III, which were cyclized by treatment with H3PO4 to give 73-81% 4 1,6- and 2,7-naphthyridines such as IV (R = Ph, p-anisyl).

IT 111123-13-8P 111123-15-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, spectra, and cyclization of)

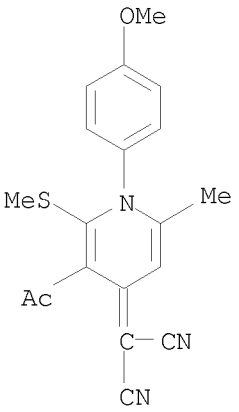
RN 111123-13-8 CAPLUS

CN Propanedinitrile, 2-[3-acetyl-6-methyl-2-(methylthio)-1-phenyl-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 111123-15-0 CAPLUS

CN Propanedinitrile, 2-[3-acetyl-1-(4-methoxyphenyl)-6-methyl-2-(methylthio)-4(1H)-pyridinylidene]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 21 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1987:416074 CAPLUS
DOCUMENT NUMBER: 107:16074
ORIGINAL REFERENCE NO.: 107:2579a,2582a
TITLE: New organic conductors based on AzaTCNQ
AUTHOR(S): Urayama, H.; Saito, G.; Inabe, T.; Mori, T.; Maruyama, Y.
CORPORATE SOURCE: Inst. Solid State Phys., Univ. Tokyo, Tokyo, 106, Japan
SOURCE: Synthetic Metals (1987), 19(1-3), 469-74
CODEN: SYMEDZ; ISSN: 0379-6779
DOCUMENT TYPE: Journal
LANGUAGE: English

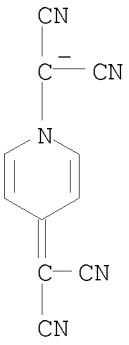
AB Complexes of AzaTCNQ(4-dicyanomethylenepyridinium dicyanomethylide) with the TTF family were examined as a new candidate for organic conductors. The tetramethyltetraselenafulvalene complex had high conductivity, and the metallic character was confirmed by thermoelec.-power and ESR measurements. The stoichiometry is 2:1, and the structural study shows that only donor mols. form a 1-dimensional stack of conduction, while the AzaTCNQ mol. plane is oriented parallel to the donor stack. The orientational disorder of AzaTCNQ presumably causes the weak temperature dependence of charge transport.

IT 108793-70-0 108793-72-2 108793-74-4
108793-76-6 108793-78-8
RL: PRP (Properties)
(elec. conductive)

RN 108793-70-0 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(1,3-dithiol-2-ylidene)-1,3-dithiole (1:1) (9CI) (CA INDEX NAME)

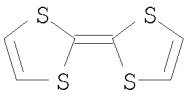
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

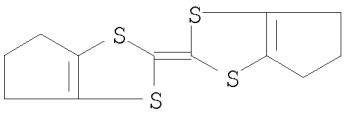
CRN 35079-56-2
CMF C6 H4 S4
CCI RIS



RN 108793-72-2 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(5,6-dihydro-4H-cyclopenta-1,3-dithiol-2-ylidene)-5,6-dihydro-4H-cyclopenta-1,3-dithiole (9CI) (CA INDEX NAME)

CM 1

CRN 57512-84-2
CMF C12 H12 S4

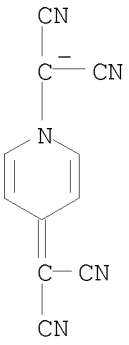


CM 2

CRN 108793-71-1
CMF C12 H12 S4 . C11 H4 N5

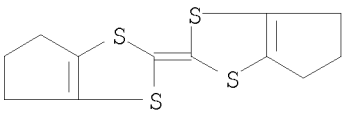
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

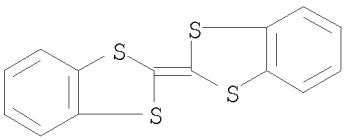
CRN 57527-01-2
CMF C12 H12 S4
CCI RIS



RN 108793-74-4 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(1,3-benzodithiol-2-ylidene)-1,3-benzodithiole (9CI) (CA INDEX NAME)

CM 1

CRN 24648-13-3
CMF C14 H8 S4

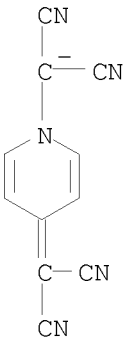


CM 2

CRN 108793-73-3
CMF C14 H8 S4 . C11 H4 N5

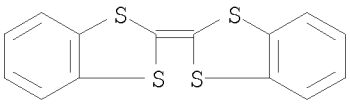
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

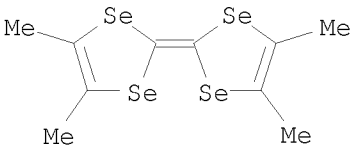
CRN 35079-60-8
CMF C14 H8 S4
CCI RIS



RN 108793-76-6 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(4,5-dimethyl-1,3-diselenol-2-ylidene)-1,3-diselenole (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 55259-49-9
CMF C10 H12 Se4

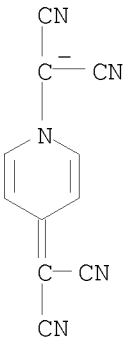


CM 2

CRN 108793-75-5
CMF C11 H4 N5 . C10 H12 Se4

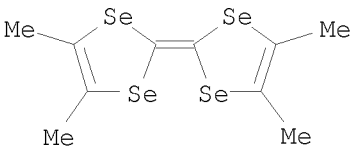
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

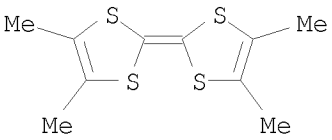
CRN 73261-22-0
CMF C10 H12 Se4
CCI RIS



RN 108793-78-8 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), salt with 2-(4,5-dimethyl-1,3-dithiol-2-ylidene)-4,5-dimethyl-1,3-dithiole (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 50708-37-7
CMF C10 H12 S4

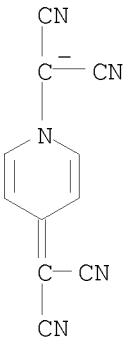


CM 2

CRN 108793-77-7
CMF C11 H4 N5 . C10 H12 S4

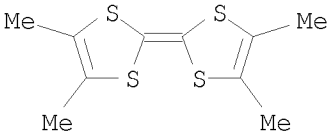
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

CRN 52597-32-7
CMF C10 H12 S4
CCI RIS



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L5 ANSWER 22 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1985:462545 CAPLUS
DOCUMENT NUMBER: 103:62545
ORIGINAL REFERENCE NO.: 103:9945a,9948a
TITLE: Photoconductor compositions
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60083035	A	19850511	JP 1983-191244	19831013 <--
JP 02014696	B	19900409		
US 4598033	A	19860701	US 1984-660572	19841012 <--
PRIORITY APPLN. INFO.:			JP 1983-191244 A	19831013 <--

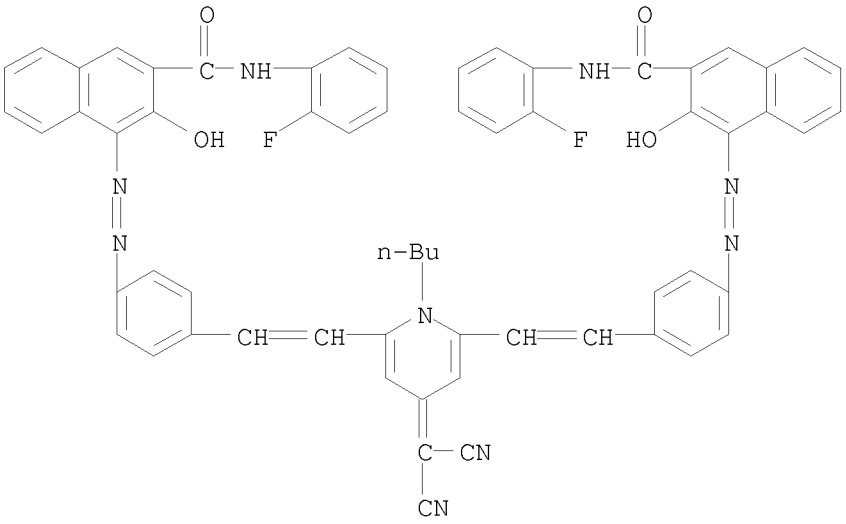
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
GI For diagram(s), see printed CA Issue.
AB Photoconductor compns. contain a bisazo compound I [X = O, S, Se, NR9; R = II, III, IV, V, CH(COMe)CONR13R14; R1-R4 = H, alkyl, aryl; R2R5 or R3R6 combination may complete a carbocyclic ring; R5,R6 = H when R2R5 or R3R6 rings are not formed; R7,R8 = electron attractive group; R7R8 may combine to form a ring; R9 = alkyl, aryl, aralkyl, alkenyl, alkynyl; R10 = CONR14R15, CO2R15; R11 = H, alkyl, Ph; R12 = H, lower alkyl, carbamoyl, CO2H, alkoxycarbonyl, aryloxycarbonyl; R13,R15 = H, alkyl, aryl, heterocyclyl; R14 = H, alkyl, Ph; A = aromatic or heterocyclic ring; m,n =

0,1,2]. Thus, VI, 4,4'-bis(diethylamino)-2,2'-dimethyltriphenylmethane and a polycarbonate resin were dissolved in CH2Cl2 and coated on a conductive film support to give an electrophotog. plate having good sensitivity.

IT 97568-89-3
RL: USES (Uses)
(electrophotog. photoconductor compns. containing)

RN 97568-89-3 CAPLUS

CN 2-Naphthalenecarboxamide, 4,4'-[[1-butyl-4-(dicyanomethylene)-1,4-dihydro-2,6-pyridinediyl]bis(2,1-ethenediyl-4,1-phenyleneazo)]bis[N-(2-fluorophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L5 ANSWER 23 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1985:24036 CAPLUS
DOCUMENT NUMBER: 102:24036
ORIGINAL REFERENCE NO.: 102:3951a,3954a
TITLE: Preparation and properties of AzaTCNQ- anion salts and mixed AzaTCNQ-/TCNQ·- salts of N-alkylpyridinium and related cations
AUTHOR(S): Tanaka, Hirohisa; Matsubayashi, Genetsu; Tanaka, Toshio
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1984), 57(8), 2198-202
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB [Cation]+ ATCNQ--type salts [I; cation = N-alkylpyridinium, 4-cyano-N-alkylpyridinium, (4-methyl-1-pyrazinio)dicyanomethanide, N-alkylquinolinium (alkyl = Me, Et), N-methylacridinium and -phenazinium; ATCNQ- = [4-(dicyanomethyl)-1-pyridinio]dicyanomethanide anion, so-called AzaTCNQ- anion] were prepared Elec. resistivities of these salts as compacted samples were 106-109 Ωcm at 25°. [Cation]+ (ATCNQ-)0.1(TCNQ•-)8.9 (cation = N-methyl- and N-ethylpyridinium, N-ethylquinolinium) and [N-methylquinolinium]+ (ATCNQ-)0.17(TCNQ•-)0.83, whose elec. resistivities (104-106 Ωcm at 25°) are somewhat smaller than those of the corresponding TCNQ•- salts, were also prepared Stackings of ATCNQ- and TCNQ•-

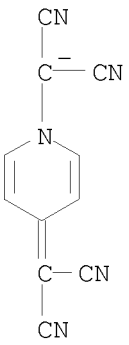
anions are discussed on the basis of electronic reflectance and ESR spectra. I salts react with iodine in hexane to give I.Ix (cation = N-methyl- and N-ethylpyridinium and -quinolinium; x = 3.2-3.9), whose elec. resistivities (104-106 Ωcm at 25°) are lower by a factor of 102-103 than those of the undoped I.

IT 93179-09-0P 93179-10-3P 93179-11-4P
93179-12-5P 93179-14-7P 93179-15-8P
93179-16-9P 93179-17-0P 93179-18-1P
93179-19-2P 93179-20-5P 93179-21-6P
93179-22-7P 93179-23-8P 93179-24-9P
93179-25-0P 93179-26-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, spectra, and elec. conductivity of)

RN 93179-09-0 CAPLUS
CN Pyridinium, 1-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

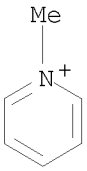
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

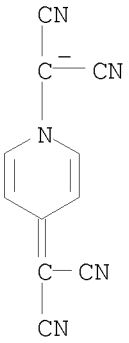
CRN 694-56-4
CMF C6 H8 N



RN 93179-10-3 CAPLUS
CN Pyridinium, 1-ethyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

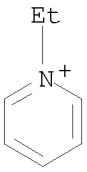
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

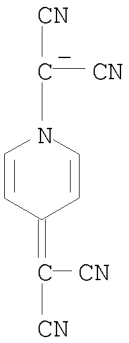
CRN 15302-96-2
CMF C7 H10 N



RN 93179-11-4 CAPLUS
CN Pyridinium, 4-cyano-1-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

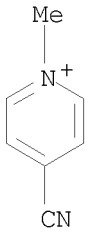
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

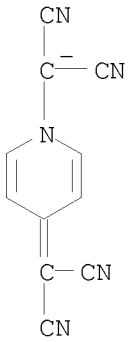
CRN 13441-45-7
CMF C7 H7 N2



RN 93179-12-5 CAPLUS
CN Pyridinium, 4-cyano-1-ethyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

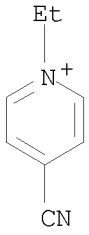
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

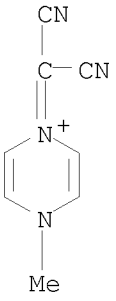
CRN 45821-46-3
CMF C8 H9 N2



RN 93179-14-7 CAPLUS
CN Pyrazinium, 1-(dicyanomethylene)-1,4-dihydro-4-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

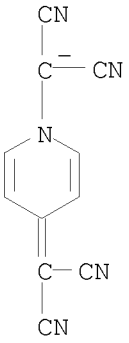
CM 1

CRN 93179-13-6
CMF C8 H7 N4



CM 2

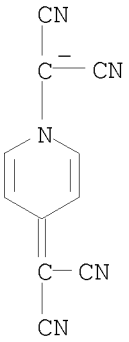
CRN 84662-81-7
CMF C11 H4 N5



RN 93179-15-8 CAPLUS
CN Quinolinium, 1-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

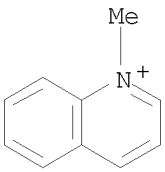
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

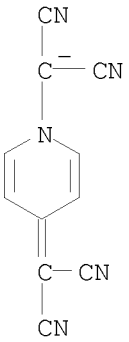
CRN 21979-19-1
CMF C10 H10 N



RN 93179-16-9 CAPLUS
CN Quinolinium, 1-ethyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

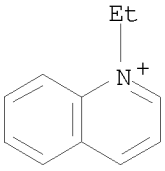
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

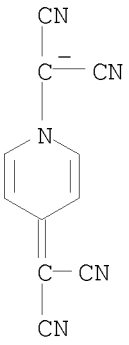
CRN 48122-97-0
CMF C11 H12 N



RN 93179-17-0 CAPLUS
CN Acridinium, 10-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

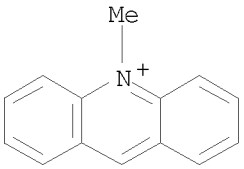
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

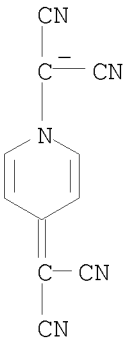
CRN 13367-81-2
CMF C14 H12 N



RN 93179-18-1 CAPLUS
CN Phenazinium, 5-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

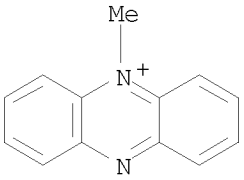
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

CRN 7432-06-6
CMF C13 H11 N2



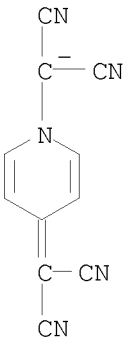
RN 93179-19-2 CAPLUS
CN Pyridinium, 1-methyl-, salt with 2,2'-(2,5-cyclohexadiene-1,4-diylidene)bis[propanedinitrile], compd. with 1-methylpyridinium salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (9CI) (CA INDEX NAME)

CM 1

CRN 93179-09-0
CMF C11 H4 N5 . C6 H8 N

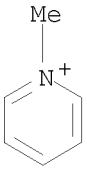
CM 2

CRN 84662-81-7
CMF C11 H4 N5



CM 3

CRN 694-56-4
CMF C6 H8 N

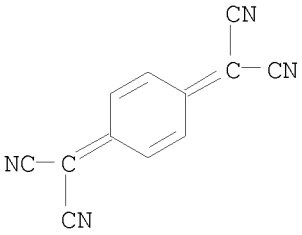


CM 4

CRN 34504-23-9
CMF C12 H4 N4 . C6 H8 N

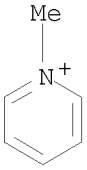
CM 5

CRN 34507-61-4
CMF C12 H4 N4
CCI RIS



CM 6

CRN 694-56-4
CMF C6 H8 N



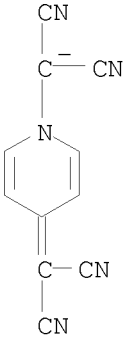
RN 93179-20-5 CAPLUS
CN Pyridinium, 1-ethyl-, salt with 2,2'-(2,5-cyclohexadiene-1,4-diylidene)bis[propanedinitrile] (1:1), compd. with 1-ethylpyridinium salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 93179-10-3
CMF C11 H4 N5 . C7 H10 N

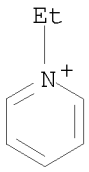
CM 2

CRN 84662-81-7
CMF C11 H4 N5



CM 3

CRN 15302-96-2
CMF C7 H10 N

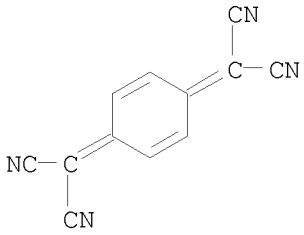


CM 4

CRN 52700-09-1
CMF C12 H4 N4 . C7 H10 N

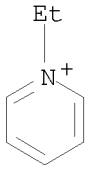
CM 5

CRN 34507-61-4
CMF C12 H4 N4
CCI RIS



CM 6

CRN 15302-96-2
CMF C7 H10 N



RN 93179-21-6 CAPLUS
CN Quinolinium, 1-methyl-, salt with 2,2'-(2,5-cyclohexadiene-1,4-diylidene)bis[propanedinitrile], compd. with 1-methylquinolinium salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (9CI) (CA INDEX NAME)

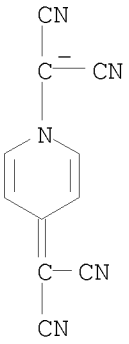
CM 1

CRN 93179-15-8

CMF C11 H4 N5 . C10 H10 N

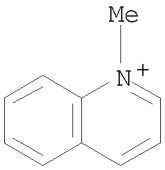
CM 2

CRN 84662-81-7
CMF C11 H4 N5



CM 3

CRN 21979-19-1
CMF C10 H10 N

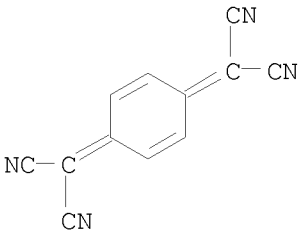


CM 4

CRN 34504-25-1
CMF C12 H4 N4 . C10 H10 N

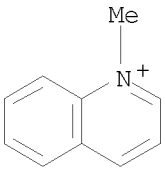
CM 5

CRN 34507-61-4
CMF C12 H4 N4
CCI RIS



CM 6

CRN 21979-19-1
CMF C10 H10 N



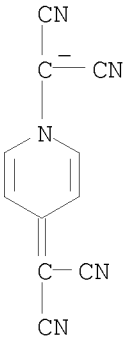
RN 93179-22-7 CAPLUS
CN Quinolinium, 1-ethyl-, salt with 2,2'-(2,5-cyclohexadiene-1,4-diylidene)bis[propanedinitrile], compd. with 1-ethylquinolinium salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (9CI) (CA INDEX NAME)

CM 1

CRN 93179-16-9
CMF C11 H12 N . C11 H4 N5

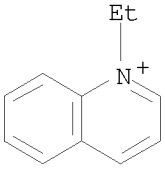
CM 2

CRN 84662-81-7
CMF C11 H4 N5



CM 3

CRN 48122-97-0
CMF C11 H12 N

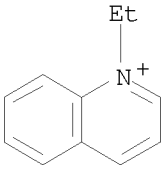


CM 4

CRN 50973-56-3
CMF C12 H4 N4 . C11 H12 N

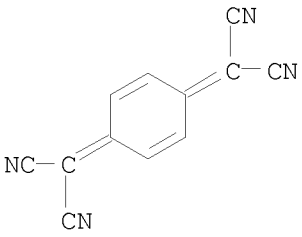
CM 5

CRN 48122-97-0
CMF C11 H12 N



CM 6

CRN 34507-61-4
CMF C12 H4 N4
CCI RIS



RN 93179-23-8 CAPLUS
CN Pyridinium, 1-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile, compd. with iodine (9CI) (CA INDEX NAME)

CM 1

CRN 7553-56-2
CMF I2

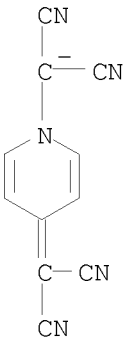
I—I

CM 2

CRN 93179-09-0
CMF C11 H4 N5 . C6 H8 N

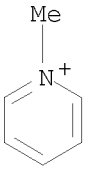
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

CRN 694-56-4
CMF C6 H8 N



RN 93179-24-9 CAPLUS
CN Pyridinium, 1-ethyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile, compd. with iodine (9CI) (CA INDEX NAME)

CM 1

CRN 7553-56-2
CMF I2

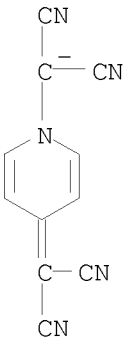
I—I

CM 2

CRN 93179-10-3
CMF C11 H4 N5 . C7 H10 N

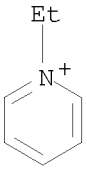
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

CRN 15302-96-2
CMF C7 H10 N



RN 93179-25-0 CAPLUS
CN Quinolinium, 1-methyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile, compd. with iodine (9CI) (CA INDEX NAME)

CM 1

CRN 7553-56-2
CMF I2

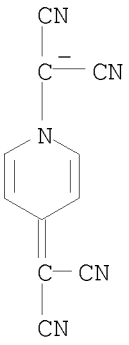
I—I

CM 2

CRN 93179-15-8
CMF C11 H4 N5 . C10 H10 N

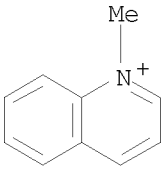
CM 3

CRN 84662-81-7
CMF C11 H4 N5



CM 4

CRN 21979-19-1
CMF C10 H10 N



RN 93179-26-1 CAPLUS
CN Quinolinium, 1-ethyl-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile, compd. with iodine (9CI) (CA INDEX NAME)

CM 1

CRN 7553-56-2
CMF I2

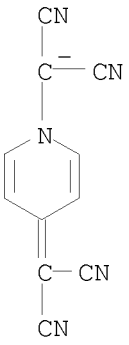
I—I

CM 2

CRN 93179-16-9
CMF C11 H12 N . C11 H4 N5

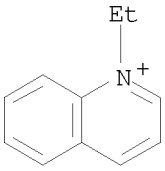
CM 3

CRN 84662-81-7
CMF C11 H4 N5

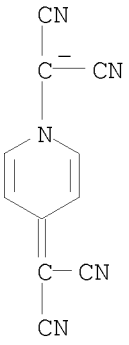


CM 4

CRN 48122-97-0
CMF C11 H12 N



IT 93179-28-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with pyridinium and quinolinium compds.)
RN 93179-28-3 CAPLUS
CN Propanedinitrile, [4-(dicyanomethylene)-1(4H)-pyridinyl]-, ion(1-), potassium (9CI) (CA INDEX NAME)



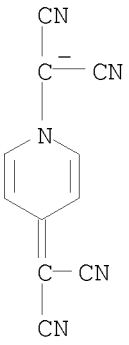
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 24 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1983:118425 CAPLUS
DOCUMENT NUMBER: 98:118425

ORIGINAL REFERENCE NO.: 98:17865a,17868a
TITLE: Preparation and properties of AzaTCNQ- anion salts and mixed AzaTCNQ-/TCNQ•-/TCNQ salts of some tetrakis(isocyanide)rhodium(I) cations, and x-ray crystal structure of the AzaTCNQ--tetrakis(2,6-dimethylphenyl isocyanide)rhodium(I)+ salt
AUTHOR(S): Matsubayashi, Genetsu; Tanaka, Hirohisa; Tanaka, Toshio; Nakatsu, Kazumi
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Inorganica Chimica Acta (1982), 63(2), 217-24
CODEN: ICHAA3; ISSN: 0020-1693
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The following ATCNQ- salts and mixed ACTNQ-/TCNQ•-/TCNQ salts (ATCNQ- = 4-dicyanomethylenepyridinium dicyanomethylide) of [Rh(RNC)4]+ were prepared: [Rh(RNC)4]+ATCNQ- (R = Ph, 2,6-Me2C6H3, and 2,4,6-Me3C6H2), [Rh(RNC)4]+(ATCNQ-)n(TCNQ•-)1-n (R = 2,6-Me2C6H3, n = 0.2; R = Ph and 2,4,6-Me3C6H2, n = 0.3), and [Rh(RNC)4]+(ATCNQ-)0.9(TCNQ•-)0.1(TCNQ)0.8 (R = 2,6-Me2C6H3 and 2,4,6-Me3C6H2). Of these salts, [Rh(2,6-Me2C6H3NC)4]+(ATCNQ-/TCNQ•-) and [Rh(2,6-Me2C6H3NC)4]+(ATCNQ-/TCNQ•-/TCNQ) exhibit elec. resistivities of .apprx.1 + 105 Ωcm as compacted samples at 25° and behave as typical semiconductors, while the resistivities of other salts are larger than 1 + 109 Ωcm. Electronic absorption spectra and magnetic susceptibilities of the salts are discussed in terms of stackings of TCNQ•-, TCNQ, and ATCNQ- in the solid state. The crystal structure of [Rh(2,6-Me2C6H3NC)4]+ATCNQ- was determined by single-crystal x-ray diffraction. The triclinic crystal, space group P.hivin.1, has a 10.964(2), b 12.768(2), c 8.375(1) Å, α 102.03(2), β 88.84(2), γ 112.07(2)°, and Z = 1, where the orientation of the ATCNQ- is disordered with respect to the pyridinium ring. Least-squares refinement, based on 4094 independent reflections with |Fo| > 3σ(F), gave an R = 0.052.
IT 84662-83-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, crystal structure, elec. resistance and magnetic susceptibility of)
RN 84662-83-9 CAPLUS
CN Rhodium(1+), tetrakis(2-isocyano-1,3-dimethylbenzene)-, (SP-4-1)-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

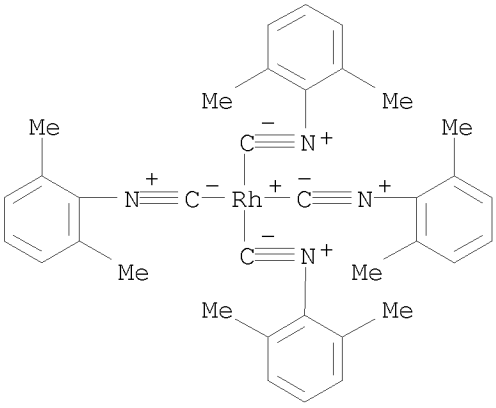
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

CRN 61754-49-2
CMF C36 H36 N4 Rh
CCI CCS

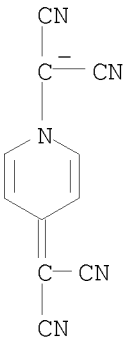


IT 84662-82-8DP, solid solution with tetrakis(phenylisocyanide)rhodium TCNQ 84662-82-8P 84662-83-9DP, solid solution with tetrakis(dimethylphenylisocyanide)rhodium TCNQ 84662-84-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, elec. resistance and magnetic susceptibility of)

RN 84662-82-8 CAPLUS
CN Rhodium(1+), tetrakis(isocyanobenzene)-, (SP-4-1)-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

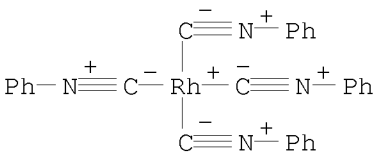
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

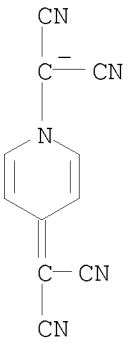
CRN 56192-48-4
CMF C28 H20 N4 Rh
CCI CCS



RN 84662-82-8 CAPLUS
CN Rhodium(1+), tetrakis(isocyanobenzene)-, (SP-4-1)-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

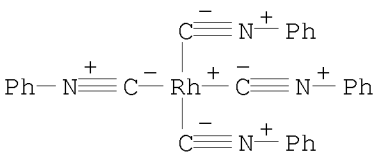
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

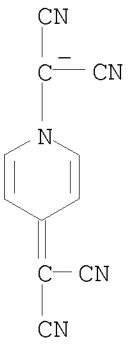
CRN 56192-48-4
CMF C28 H20 N4 Rh
CCI CCS



RN 84662-83-9 CAPLUS
CN Rhodium(1+), tetrakis(2-isocyano-1,3-dimethylbenzene)-, (SP-4-1)-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

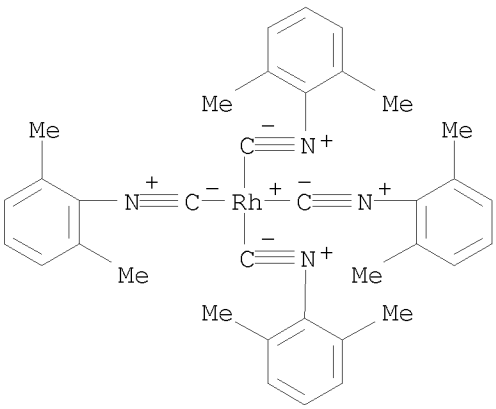
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

CRN 61754-49-2
CMF C36 H36 N4 Rh
CCI CCS

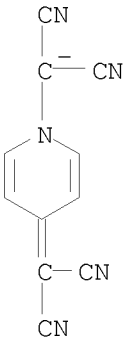


RN 84662-84-0 CAPLUS
CN Rhodium(1+), tetrakis(2-isocyano-1,3,5-trimethylbenzene)-, (SP-4-1)-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI)

(CA INDEX NAME)

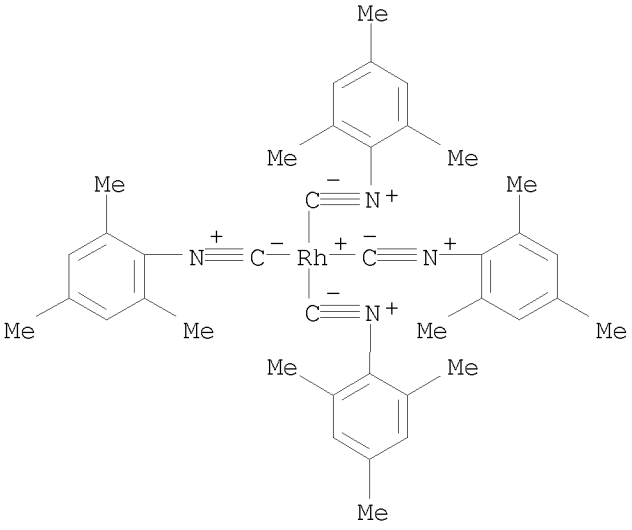
CM 1

CRN 84662-81-7
CMF C11 H4 N5



CM 2

CRN 70443-06-0
CMF C40 H44 N4 Rh
CCI CCS



IT 84662-84-0DP, solid solution with tetrakis(trimethylphenylisocyanide)rhodium TCNQ
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, elec. resistance and magnetic susceptibility of,)

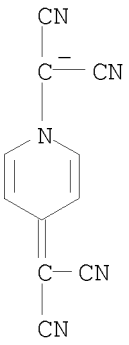
RN 84662-84-0 CAPLUS

CN Rhodium(1+), tetrakis(2-isocyano-1,3,5-trimethylbenzene)-, (SP-4-1)-, salt with [4-(dicyanomethylene)-1(4H)-pyridinyl]propanedinitrile (1:1) (9CI) (CA INDEX NAME)

CM 1

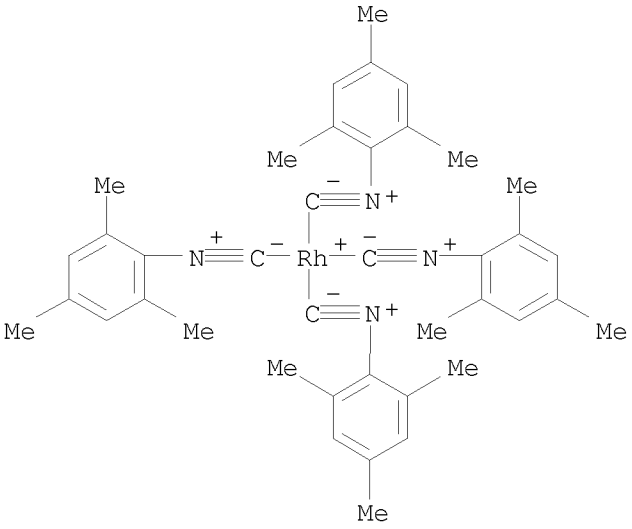
CRN 84662-81-7

CMF C11 H4 N5



CM 2

CRN 70443-06-0
CMF C40 H44 N4 Rh
CCI CCS



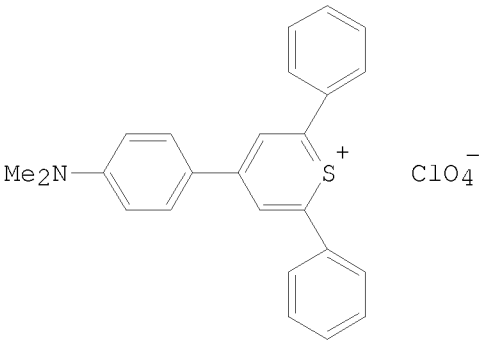
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L5 ANSWER 25 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1981:433460 CAPLUS
DOCUMENT NUMBER: 95:33460
ORIGINAL REFERENCE NO.: 95:5629a,5632a
TITLE: Electrically photosensitive particles for electrophoretic migration imaging processes, dispersions of these particles and processes using such dispersions
INVENTOR(S): Merrill, Stewart Henry; Turnblom, Ernest Wayne; Stahly, Frederick August; Wright, Beth George; Wright, Hal Eldon
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: Eur. Pat. Appl., 68 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 24169	A2	19810225	EP 1980-302706	19800807 <--
EP 24169	A3	19811125		
R: CH, DE, FR, GB				
US 4322487	A	19820330	US 1979-64972	19790808 <--
CA 1143204	A1	19830322	CA 1980-357297	19800730 <--
JP 56030159	A	19810326	JP 1980-108369	19800808 <--

PRIORITY APPLN. INFO.: US 1979-64972 A 19790808 <--
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
GI

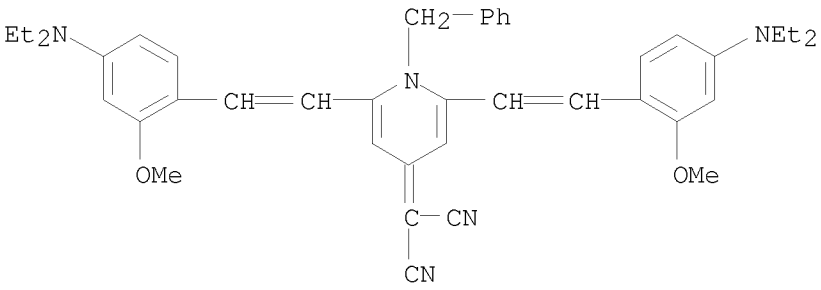


I

AB Elec. photosensitive dispersion for electrophoretic imaging consists of a colorant and a polymeric binder comprising units containing ≥1 structures of triarylamine, p-aminotetraarylmethane, 4,4'-bis(p-amino)triarylmethane, 1,1-bis(p-aminoaryl)isobutane, 1,1-bis(p-aminoaryl)cyclohexane, N-alkyl-N,N-diarylamine, N-alkenyl-N,N-diarylamine, N,N-diallyl-N-arylamine, and C3-12 heterocyclic containing ≥1 N atom in the ring structure. Thus, poly(di-p-tolylaminostyrene) 0.255 was mixed with a solution containing I 0.045, CH2Cl2 20 g, combined with Isopar G 225 mL, centrifuged, to give a precipitate (containing 15% of I), 0.26 g of which was milled 3 h with vinyltoluene-lauryl methacrylate-Li methacrylate-methacrylic acid polymer 0.26, Isopar G 4.65, and imaged in an imaging apparatus (Carousel projector with W lamp, imaging electrode 12.5-50 cm, voltage -1.5 kV) to give an image with Dmax and Dmin 1.42 and 0.08, resp., vs. 0.54 and 0.15 for a binder-free control.

IT 65833-38-7
RL: USES (Uses)
(photoelectrophoretic imaging dispersion containing polymeric binder and)

RN 65833-38-7 CAPLUS
CN Propanedinitrile, 2-[2,6-bis[2-[4-(diethylamino)-2-methoxyphenyl]ethenyl]-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)

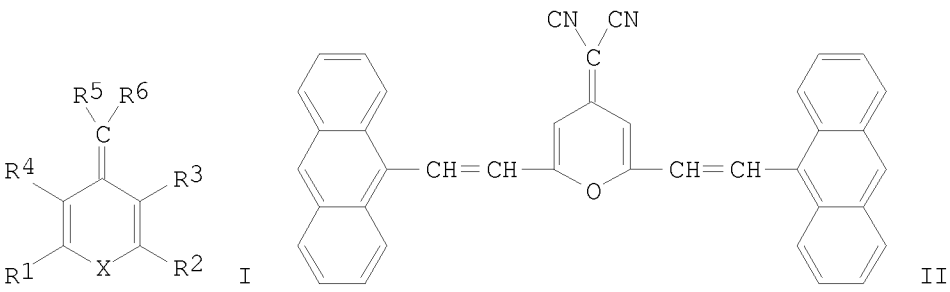


OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L5 ANSWER 26 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1979:430527 CAPLUS
DOCUMENT NUMBER: 91:30527
ORIGINAL REFERENCE NO.: 91:4883a,4886a
TITLE: Photoelectrophoretic particles for producing color images
INVENTOR(S): Vanallan, James Albert; Webster, Frank Glenn; Reynolds, George Arthur
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: Ger. Offen., 74 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2831054	A1	19790118	DE 1978-2831054	19780714 <--
DE 2831054	B2	19820107		
DE 2831054	C3	19820812		
US 4145215	A	19790320	US 1977-816128	19770715 <--
US 4146707	A	19790327	US 1978-874078	19780201 <--
CA 1110898	A1	19811020	CA 1978-305192	19780612 <--
FR 2397659	A1	19790209	FR 1978-20765	19780712 <--
FR 2397659	B1	19800404		
JP 54021722	A	19790219	JP 1978-85243	19780714 <--
GB 2002528	A	19790221	GB 1978-30093	19780717 <--
GB 2002528	B	19820127		

PRIORITY APPLN. INFO.: US 1977-816128 A 19770715 <--
GI

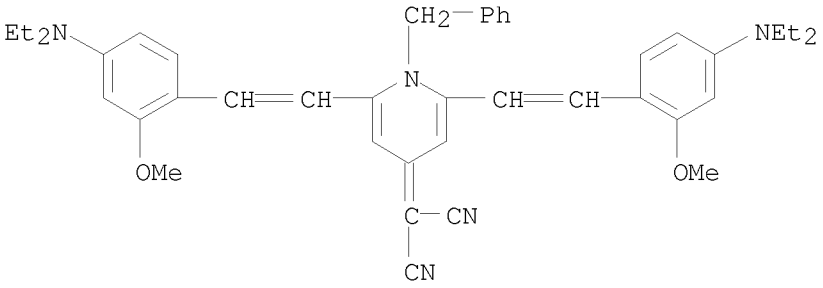


I II

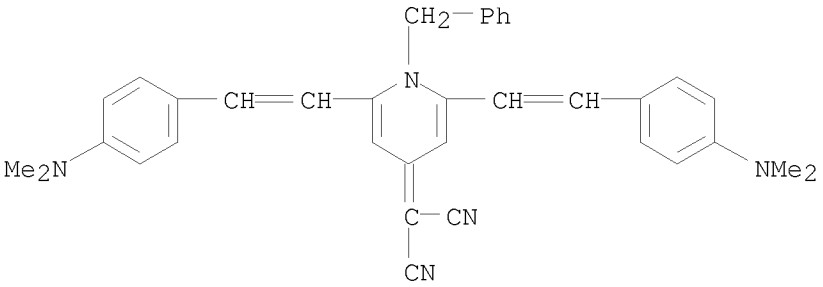
AB Elec. photosensitive particles for a photoelectrophoretic imaging device have the structure I (X is O, S, Se, or NR, where R = halogen, OH, alkoxy, or aryloxy substituted alkyl, aryl, aralkyl, cycloalkyl, alkenyl, or alkynyl; R5, R6 = CN or taken together form an O-substituted cyclic ring, other heterocyclic ring, or electron acceptor group; R1, R2 = alkyl, aryl, CL1(=CL2CL3=)mA1, CL4=CL5(CL3=CL7)n A2, or R1 is the same as R4 or R2 is the same as R3 in the completion of an alkylene bridge, where m and n = 0, 1, or 2; L1, L2, L3, L4, L5, L6, and L7 = H, alkyl, or aryl, or L3 or L4 is the same as R3 or R4 for completion of a carbocyclic ring; A1 and A2 are basic heterocyclic groups; R3 is H or the same as R2, L1, or L4 in a 5- or 6-membered carbocyclic ring; R4 is H or the same as R1, L1, or L4 in a 5- or 6-membered carbocyclic ring). Thus, an excellent red-brown image was produced by a known electrophoretic imaging method with the use of a dispersion containing II.

IT 65833-38-7 65833-47-8 65833-48-9
70503-51-4
RL: USES (Uses)
(electrophoretic color imaging composition containing elec. photosensitive particles of)

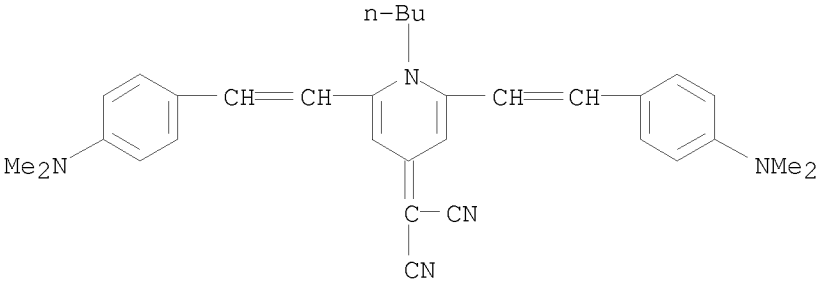
RN 65833-38-7 CAPLUS
CN Propanedinitrile, 2-[2,6-bis[2-[4-(diethylamino)-2-methoxyphenyl]ethenyl]-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



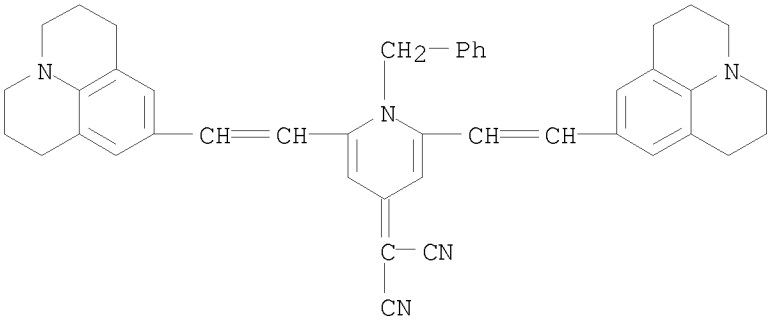
RN 65833-47-8 CAPLUS
CN Propanedinitrile, 2-[2,6-bis[2-[4-(dimethylamino)phenyl]ethenyl]-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 65833-48-9 CAPLUS
CN Propanedinitrile, 2-[1-butyl-2,6-bis[2-[4-(dimethylamino)phenyl]ethenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 70503-51-4 CAPLUS
CN Propanedinitrile, 2-[1-(phenylmethyl)-2,6-bis[2-(2,3,6,7-tetrahydro-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

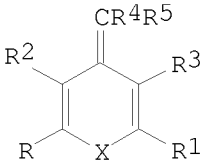


OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

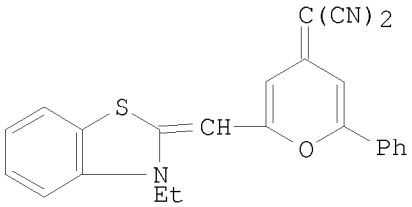
L5 ANSWER 27 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1978:128987 CAPLUS
DOCUMENT NUMBER: 88:128987
ORIGINAL REFERENCE NO.: 88:20171a,20174a
TITLE: Migration imaging process
AUTHOR(S): Van Allan, James Albert; Webster, Frank Glenn; Reynolds, George Arthur
CORPORATE SOURCE: UK
SOURCE: Research Disclosure (1977), 162, 26-31 (No. 16247)
CODEN: RSDSBB; ISSN: 0374-4353
DOCUMENT TYPE: Journal; Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 162047		19771010	RD 1977-162047	19771010 <--
PRIORITY APPLN. INFO.:			RD 1977-162047	19771010 <--

GI



I

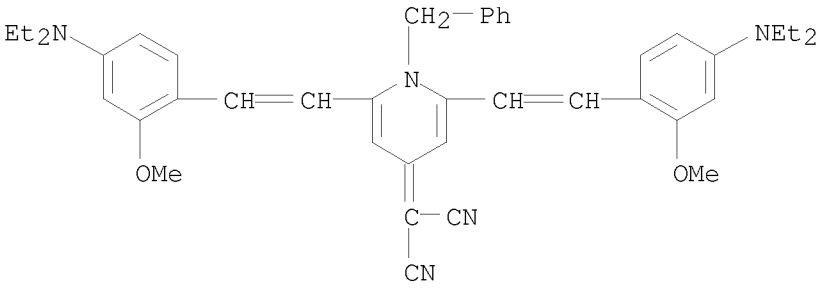


II

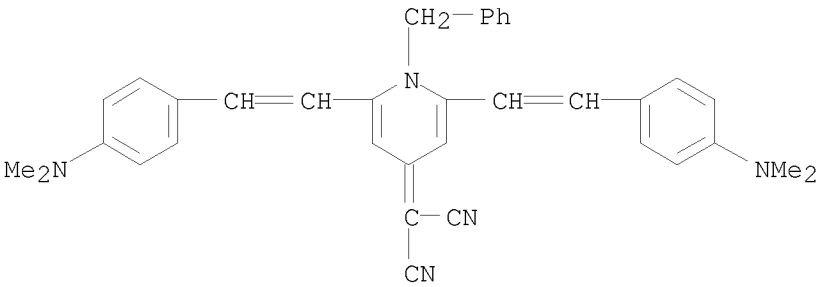
AB Forty electrophotosensitive pigments of the structure I (R, R1 are heterocyclic nuclei linked through a system of conjugated double bonds, R2, R3 are H or together with R and R1, resp., form a carbocyclic ring; R4, R5 are electron-withdrawing groups or together form an acidic heterocycle as in merocyanine dyes; and X is 0, S, or NR6 where R6 is alkyl, aryl, aralkyl, or the like) are described for use in electrophoretic migration imaging. Thus, to 5g of an imaging dispersion containing Isopar G 2.2, Solvesso 1.3, Piccotex 100 1.4, and lauryl methacrylate-Li methacrylate-methacrylic acid-vinyltoluene polymer 0.1g was added II 0.45 g and the dispersion then milled with stainless steel balls for 3 h. Upon testing this dispersion in a migration imaging process, a neg. of an original was obtained on 1 electrode and a complementary image on the other electrode.

IT 65833-38-7 65833-47-8 65833-48-9
RL: USES (Uses)
(electrophotosensitive pigment, for migration imaging process)

RN 65833-38-7 CAPLUS
CN Propanedinitrile, 2-[2,6-bis[2-[4-(diethylamino)-2-methoxyphenyl]ethenyl]-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)

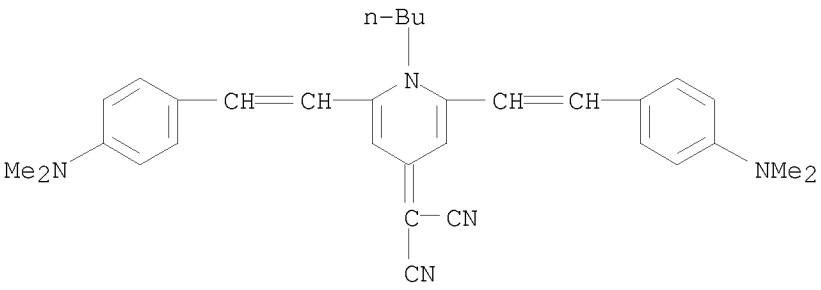


RN 65833-47-8 CAPLUS
CN Propanedinitrile, 2-[2,6-bis[2-[4-(dimethylamino)phenyl]ethenyl]-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)

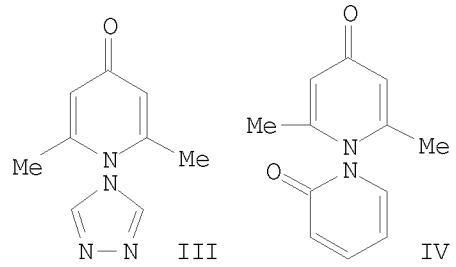


RN 65833-48-9 CAPLUS

CN Propanedinitrile, 2-[1-butyl-2,6-bis[2-[4-(dimethylamino)phenyl]ethenyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)

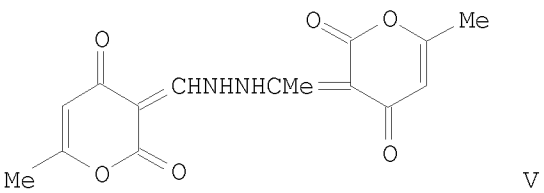


L5 ANSWER 28 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1977:601414 CAPLUS
DOCUMENT NUMBER: 87:201414
ORIGINAL REFERENCE NO.: 87:31890h,31891a
TITLE: N-Oxides and related compounds. Part 56. Preparation of NN'-linked bi(heteroaryls) from dehydroacetic acid and 2,6-dimethyl-4-pyrone
AUTHOR(S): Afridi, A. Sultan; Katritzky, Alan R.; Ramsden, Christopher A.
CORPORATE SOURCE: Sch. Chem. Sci., Univ. East Anglia, Norwich, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1977), (12), 1428-36
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 87:201414
GI



III

IV



V

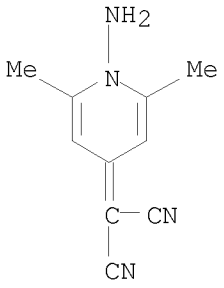
AB Cyclocondensation reactions of dehydroacetic acid (I) or 2,6-dimethyl-4-pyrone (II) with aminopyridones, aminotriazoles, and hydrazines gave N,N'-linked bi(heteroaryls). E.g., 4-amino-1,2,4-triazole with I and II gave 65% and 40% triazolylpyridone III, resp. 1-Amino-2-pyridone with II gave 15% bipyridinedione IV. NH2NH2.H2O with I

gave 90% azine V. Reactions of III and related mono- and dications were studied.

IT 62071-85-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of)

RN 62071-85-6 CAPLUS

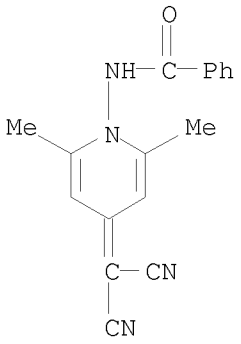
CN Propanedinitrile, 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



IT 64804-43-9P 64804-44-0P 64804-45-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

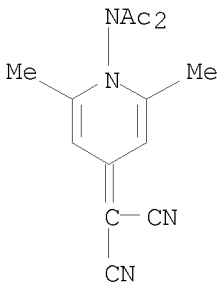
RN 64804-43-9 CAPLUS

CN Benzamide, N-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]- (CA INDEX NAME)

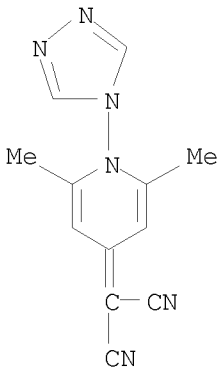


RN 64804-44-0 CAPLUS

CN Acetamide, N-acetyl-N-[4-(dicyanomethylene)-2,6-dimethyl-1(4H)-pyridinyl]- (CA INDEX NAME)

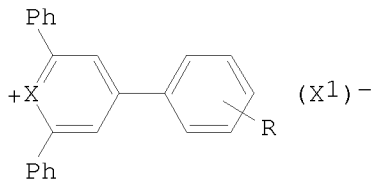


RN 64804-45-1 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-(4H-1,2,4-triazol-4-yl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L5 ANSWER 29 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1977:105314 CAPLUS
DOCUMENT NUMBER: 86:105314
ORIGINAL REFERENCE NO.: 86:16609a,16612a
TITLE: Charge-transfer π complexes formed from the pyrylium ion
AUTHOR(S): Van Allan, James A.; Chang, Jack C.; Costa, Lorenzo F.; Reynolds, George A.
CORPORATE SOURCE: Res. Lab., Eastman Kodak Co., Rochester, NY, USA
SOURCE: Journal of Chemical and Engineering Data (1977), 22(1), 101-4
CODEN: JCEAAX; ISSN: 0021-9568
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB New organic charge-transfer compds. were prepared from an organic cation (I; R = H, X = S, X2 = ClO4; R = H, Me, X = O, X1 = BF4, ClO4, iodo) and a neutral organic mol. (triphenylamine or N-amino-4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine). The absorption spectra of these charge-transfer complexes were determined in solution and in the solid state. These salts have the charge-transfer band in the visible region as a result of electron transfer from the organic moiety to the cation. The extinction coefficient, association constant, conductivity, photocond., and emission were examined for a few members of this series.
IT 62071-86-7P 62071-89-0P 62071-90-3P
62071-93-6P

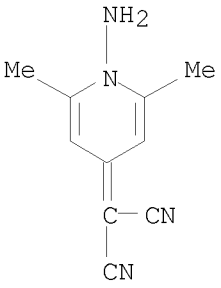
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and luminescence property of)

RN 62071-86-7 CAPLUS

CN Thiopyranium, 2,4,6-triphenyl-, perchlorate, compd. with 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)propanedinitrile (1:1:1) (CA INDEX NAME)

CM 1

CRN 62071-85-6
CMF C10 H10 N4

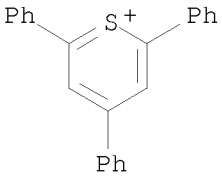


CM 2

CRN 2930-37-2
CMF C23 H17 S . Cl O4

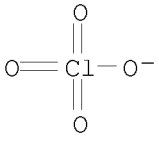
CM 3

CRN 18342-83-1
CMF C23 H17 S



CM 4

CRN 14797-73-0
CMF Cl O4



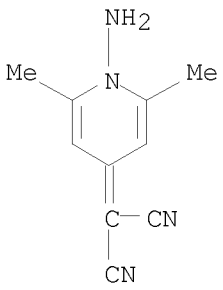
RN 62071-89-0 CAPLUS

CN Pyrylium, 4-(4-methylphenyl)-2,6-diphenyl-, perchlorate, compd. with 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)propanedinitrile (1:1:1) (CA

INDEX NAME)

CM 1

CRN 62071-85-6
CMF C10 H10 N4

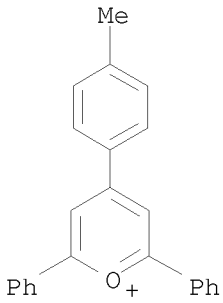


CM 2

CRN 3558-64-3
CMF C24 H19 O . Cl O4

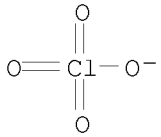
CM 3

CRN 47454-43-3
CMF C24 H19 O



CM 4

CRN 14797-73-0
CMF Cl O4

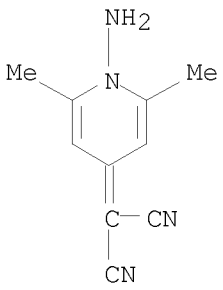


RN 62071-90-3 CAPLUS
CN Pyrylium, 4-(3-methylphenyl)-2,6-diphenyl-, tetrafluoroborate(1-), compd. with (1-amino-2,6-dimethyl-4(1H)-pyridinylidene)propanedinitrile (1:1)

(9CI) (CA INDEX NAME)

CM 1

CRN 62071-85-6
CMF C10 H10 N4

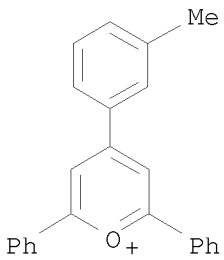


CM 2

CRN 61669-49-6
CMF C24 H19 O . B F4

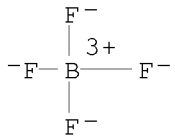
CM 3

CRN 61669-48-5
CMF C24 H19 O



CM 4

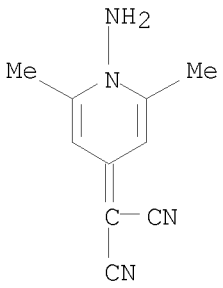
CRN 14874-70-5
CMF B F4
CCI CCS



RN 62071-93-6 CAPLUS
CN Pyrylium, 4-(2-methylphenyl)-2,6-diphenyl-, perchlorate, compd. with 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)propanedinitrile (1:1:1) (CA INDEX NAME)

CM 1

CRN 62071-85-6
CMF C10 H10 N4

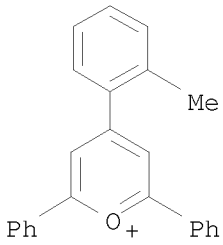


CM 2

CRN 62071-92-5
CMF C24 H19 O . Cl O4

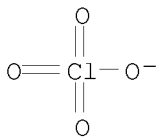
CM 3

CRN 62071-91-4
CMF C24 H19 O



CM 4

CRN 14797-73-0
CMF Cl O4

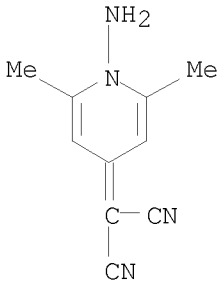


IT 62071-87-8P 62071-88-9P 62287-21-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 62071-87-8 CAPLUS
CN Pyrylium, 2,4,6-triphenyl-, tetrafluoroborate(1-), compd. with (1-amino-2,6-dimethyl-4(1H)-pyridinylidene)propanedinitrile (1:1) (9CI)

(CA INDEX NAME)

CM 1

CRN 62071-85-6
CMF C10 H10 N4

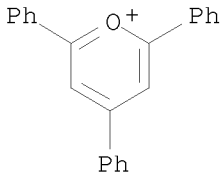


CM 2

CRN 448-61-3
CMF C23 H17 O . B F4

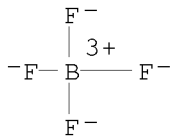
CM 3

CRN 15959-35-0
CMF C23 H17 O



CM 4

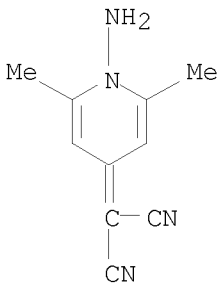
CRN 14874-70-5
CMF B F4
CCI CCS



RN 62071-88-9 CAPLUS
CN Pyrylium, 2,4,6-triphenyl-, perchlorate, compd. with 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)propanedinitrile (1:1:1) (CA INDEX NAME)

CM 1

CRN 62071-85-6
CMF C10 H10 N4

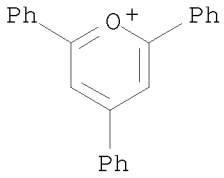


CM 2

CRN 1484-88-4
CMF C23 H17 O . Cl O4

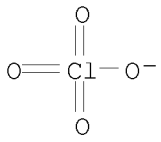
CM 3

CRN 15959-35-0
CMF C23 H17 O



CM 4

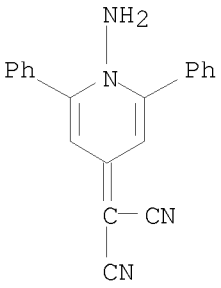
CRN 14797-73-0
CMF Cl O4



RN 62287-21-2 CAPLUS
CN Pyrylium, 2,4,6-triphenyl-, iodide, compd. with 2-(1-amino-2,6-diphenyl-4(1H)-pyridinylidene)propanedinitrile (1:1:1) (CA INDEX NAME)

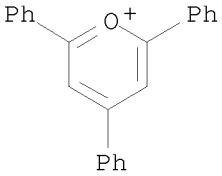
CM 1

CRN 62287-20-1
CMF C20 H14 N4



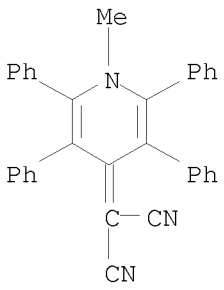
CM 2

CRN 3495-60-1
CMF C23 H17 O . I

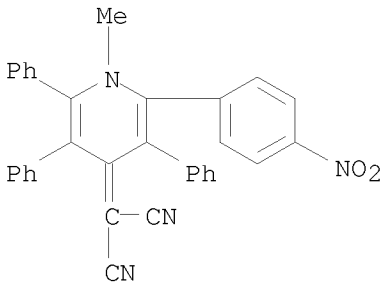


L5 ANSWER 30 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1975:170771 CAPLUS
DOCUMENT NUMBER: 82:170771
ORIGINAL REFERENCE NO.: 82:27289a,27292a
TITLE: Heterocycles by cycloaddition. I. Cycloaddition-extrusion-ring expansion reactions of five-membered mesoionic compounds with diphenylcyclopropenone and related compounds. Preparation of six-membered heterocycles
AUTHOR(S): Matsukubo, Hiroshi; Kato, Hiroshi
CORPORATE SOURCE: Dep. Chem., Shinshu Univ., Matsumoto, Japan
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1975), (7), 632-5
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB MeNBzCHPhCO2H with Ac2O cyclized to the mesoionic oxazolone I which with the cyclopropenylidene derivs. II [R = O, S, NSO2C6H4Me-p, C(CN)2, C(CN)CO2Et] gave 41-65% of the corresponding pyridine derivs. III. The thiazolone IV with II also gave III. The mesoionic dithiolone V with II [R = C(CN)CO2Et] gave the expected thiopyran derivative VI and the indenothiopyran VII.
IT 54133-10-7P 56197-87-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54133-10-7 CAPLUS

CN Propanedinitrile, 2-(1-methyl-2,3,5,6-tetraphenyl-4(1H)-pyridinylidene)-
(CA INDEX NAME)



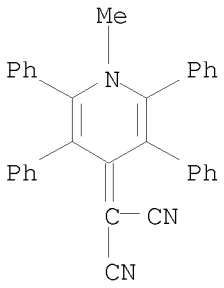
RN 56197-87-6 CAPLUS
CN Propanedinitrile, 2-[1-methyl-2-(4-nitrophenyl)-3,5,6-triphenyl-4(1H)-
pyridinylidene]- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

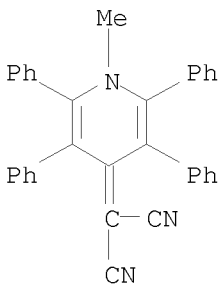
L5 ANSWER 31 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1975:156017 CAPLUS
DOCUMENT NUMBER: 82:156017
ORIGINAL REFERENCE NO.: 82:24889a,24892a
TITLE: Reactions of triafulvenes with azomethine ylides
AUTHOR(S): Eicher, Th.; Schaefer, V.
CORPORATE SOURCE: Inst. Org. Chem., Univ. Wuerzburg, Wuerzburg, Fed.
Rep. Ger.
SOURCE: Tetrahedron (1974), 30(22), 4025-9
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: German
GI For diagram(s), see printed CA Issue.
AB The reaction of the azomethine ylides I (R = Me, Ph, R1 = Me, R2= Ph; R =
R2 = Me, R1 = Ph), prepared by heating RCONR1CHR2CO2H with Ac2O, with
cyclopropenones II (R3 = R4 = Ph, X = O, S; R3 = Me, Ph, R4 = Me, X = O)
and of I (R = R2 =Ph, R1 = Me) with methylenecyclopropenes III (R5 = R6 =
CN, COMe, COPh; R5 = CN, R6 = COPh, CO2Me) gave 4-pyridones IV and
1,4-dihydro-N-methyl-4-methylenepyridines V, resp., by (3 + 3) cycloaddn.
The merocyanine systems V exhibited solvatochromic and thermochromic
properties.
IT 54133-10-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54133-10-7 CAPLUS
CN Propanedinitrile, 2-(1-methyl-2,3,5,6-tetraphenyl-4(1H)-pyridinylidene)-

(CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L5 ANSWER 32 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1974:504800 CAPLUS
DOCUMENT NUMBER: 81:104800
ORIGINAL REFERENCE NO.: 81:16563a,16566a
TITLE: Cycloaddition reactions of cyclic and acyclic 1,3-dipoles with diphenylcyclopropenone and related compounds. A new rearrangement
AUTHOR(S): Matsukubo, Hiroshi; Kato, Hiroshi
CORPORATE SOURCE: Dep. Chem., Shinshu Univ., Matsumoto, Japan
SOURCE: Journal of the Chemical Society, Chemical Communications (1974), (10), 412-13
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Cycloaddn. of diphenylcyclopropenes, e.g. I, to mesoionic compds., e.g. II, occurred across the C:C double bond to give 33-63% 1,4-dihydrotetraphenylpyridine and tetraphenylthiopyran derivs. e.g. III. Cycloaddn. of PhCNO with I occurred across the C:O double bond to give, by rearrangement, 40% triphenyl-1,3-oxazin-6-one.
IT 54133-10-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54133-10-7 CAPLUS
CN Propanedinitrile, 2-(1-methyl-2,3,5,6-tetraphenyl-4(1H)-pyridinylidene)-
(CA INDEX NAME)



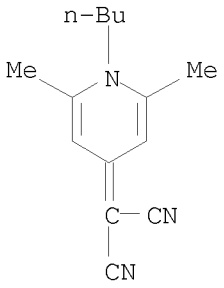
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L5 ANSWER 33 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1974:133209 CAPLUS
DOCUMENT NUMBER: 80:133209
ORIGINAL REFERENCE NO.: 80:21477a,21480a
TITLE: Synthesis and properties of heterofulvenes. Derivatives of 2,6-dimethyl-γ-pyrone, -γ-thiapyrone, and N-butyl-2,6-dimethyl-γ-pyridone
AUTHOR(S): Belsky, I.; Dodiuk, H.; Shvo, Y.
CORPORATE SOURCE: Dep. Chem., Tel-Aviv Univ., Tel-Aviv, Israel
SOURCE: Journal of Organic Chemistry (1974), 39(7), 989-95
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English

AB O-, S-, and N-containing heterofulvenes, derivs. of 2,6-dimethyl-γ-pyrone (I), -γ-thiapyrone (II), and N-butyl-2,6-dimethyl-γ-pyridone were prepared The O and S heterocycles were prepared by condensation of I and II, resp., with active methylene compds. in Ac2O. The N heterocycles were obtained from the O heterocycles by reaction with BuNH2. Side reactions were observed when BuNH2 reacted with methyl 2,6-dimethyl-4H-pyran-4-ylidenenitroacetate and 2,6-dimethyl-4H-pyran-4-ylidenenitroacetone. A new convenient route to heterofulvenes which bear a single substituent at the exocyclic double bond was developed. Thus, heterofulvenes substituted by an acetyl group at the exocyclic double bond were found to undergo acetyl cleavage, under very mild acidic conditions, resulting in the formation of monosubstituted heterofulvenes. Deuterium exchange reactions in the systems under consideration were studied. The NMR, uv, and ir data of the disubstituted and monosubstituted heterofulvenes are discussed in terms of the heteroatom and the substituents at the exocyclic double bond.

IT 49810-95-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 49810-95-9 CAPLUS
CN Propanedinitrile, 2-(1-butyl-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

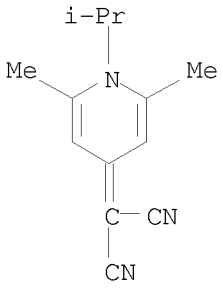
L5 ANSWER 34 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1971:463550 CAPLUS
DOCUMENT NUMBER: 75:63550
ORIGINAL REFERENCE NO.: 75:10067a,10070a
TITLE: Reactions of 4-dicyanomethylenepyrans with hindered primary amines
AUTHOR(S): VanAllan, J. A.; Reynolds, G. A.
CORPORATE SOURCE: Res. Lab., Eastman Kodak Co., Rochester, NY, USA
SOURCE: Journal of Heterocyclic Chemistry (1971),

8(3), 367-71
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English

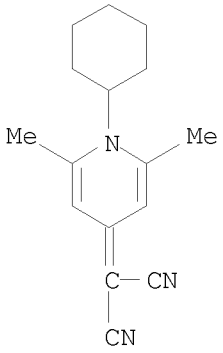
AB Reaction of 2,6-dimethyl- and 2,6-diphenyl-4-dicyanomethylene-4H-pyran with hindered primary amines such as isopropylamine and cyclohexylamine gave 1-alkyl-2-amino-3-cyano-6-methyl (or phenyl)-4-acetonylidene (or phenacylidene)-1,4-dihydropyridine derivs. 6-Methyl-4-acetonylidene examples underwent a facile thermal rearrangement to give 1-alkyl-2,6-dimethyl-4-dicyanomethylene-1,4-dihydropyridines. Several reactions of the acylidene derivs. are described.

IT 32883-35-5P 32883-36-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 32883-35-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-(1-methylethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 32883-36-6 CAPLUS
CN Propanedinitrile, 2-(1-cyclohexyl-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

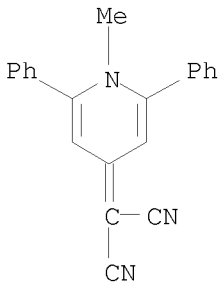
L5 ANSWER 35 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1970:435253 CAPLUS
DOCUMENT NUMBER: 73:35253
ORIGINAL REFERENCE NO.: 73:5841a,5844a
TITLE: Reactions of some 4-methylene-4H-pyran derivatives with primary and secondary amines
AUTHOR(S): Van Allan, James A.; Reynolds, George Arthur; Petropoulos, C. C.; Maier, D. P.
CORPORATE SOURCE: Res. Lab., Eastman Kodak Co., Rochester, NY, USA

SOURCE: Journal of Heterocyclic Chemistry (1970), 7(3), 495-507
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 73:35253

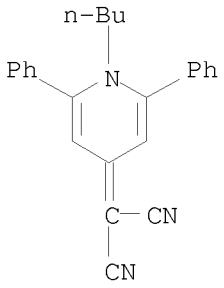
AB 4-Dicyanomethylene-4H-pyrans react with secondary amines to give 2-aminopyridine and 2-pyridone derivs., which, in turn, were used to prepare copyrine derivatives. These pyrans and pyrimary amines gave copyrine and iminopyridone derivatives in addition to dicyanomethylene-1,4-dihydropyridines. Reaction of cyanocarbamoylmethylene-4H-pyrans with secondary amines gave 2-pyrones, and with primary amines, gave copyrines and 1,4-dihydropyridine derivs.

IT 27337-89-9P 27337-90-2P 27368-13-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

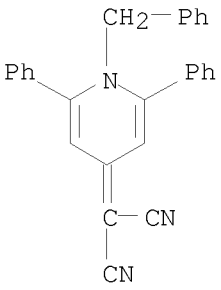
RN 27337-89-9 CAPLUS
CN Propanedinitrile, 2-(1-methyl-2,6-diphenyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



RN 27337-90-2 CAPLUS
CN Propanedinitrile, 2-(1-butyl-2,6-diphenyl-4(1H)-pyridinylidene)- (CA INDEX NAME)

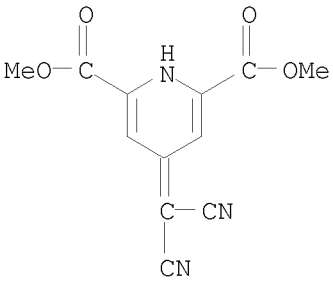


RN 27368-13-4 CAPLUS
CN Propanedinitrile, 2-[2,6-diphenyl-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)

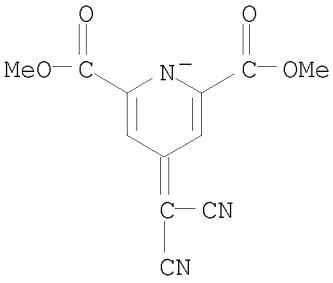


OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L5 ANSWER 36 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1968:21803 CAPLUS
DOCUMENT NUMBER: 68:21803
ORIGINAL REFERENCE NO.: 68:4183a,4186a
TITLE: 4(1H)-Pyridylidene compounds. Synthesis and structure
AUTHOR(S): Omote, Yoshimori; Kuo, Kung-Tu; Sugiyama, Noboru
CORPORATE SOURCE: Tokyo Kyoiku Univ., Tokyo, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1967), 40(7), 1695-7
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 68:21803
GI For diagram(s), see printed CA Issue.
AB Compds. of the general formula I and anions of the general formula II are prepared Thus, di-Me 4-chloropyridine-2,6-dicarboxylate (III), m. 142°, is prepared The oil is removed from 1.5 g. 50% NaH dispersion, 10 ml. HCONMe2 added, the mixture cooled, 3.4 g. tert-BuO2CCH2CN slowly added, the mixture heated to 50°, a solution of 2 g. III in 10 ml. HCONMe2 slowly added, and the mixture heated 4.5 hrs. at 120° to give 1.5 g. tert-butyl α-cyano-α-[4(1H)-2,6-bis(methoxycarbonyl)pyridylidene]acetate anion (II, (R = CO2Bu-tert) (IV), m. 247° (decomposition) (EtOH). IV (100 mg.) is acidified with HCl in EtOH to give 70 mg. tert-butyl α-cyano-α-[4(1H)-2,6-(bismethoxycarbonyl)pyridylidene]acetate, m. 175° (decomposition). Similarly prepared is I (R = CN), m. 218-19° (decomposition) (EtOH). A solution is prepared from 0.2 g. Na and 5 ml. EtOH, 2.5 g. EtO2CCH2CN slowly added, the mixture heated 30 min. and cooled to room temperature, 2 g. III added, and the mixture heated 30 min. to give I (R = CO2Et) (V), m. 149° (EtOH). Similarly prepared is II (R = CN), m. 291°. A solution of V in EtOH is treated with KOH (EtOH) to give II (R = CO2Et), m. 207-8° (decomposition) (EtOH). N.M.R., ir, and uv data are given.
IT 16795-46-3P 16833-89-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16795-46-3 CAPLUS
CN 2,6-Pyridinedicarboxylic acid, 4-(dicyanomethylene)-1,4-dihydro-, 2,6-dimethyl ester (CA INDEX NAME)

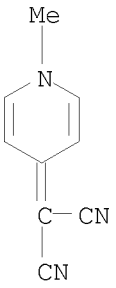


RN 16833-89-9 CAPLUS
CN 2,6-Pyridinedicarboxylic acid, 4-(dicyanomethylene)-1,4-dihydro-, dimethyl ester, ion(1-) (8CI) (CA INDEX NAME)

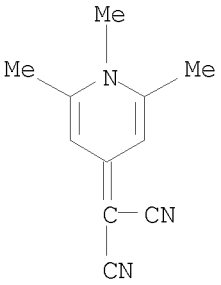


OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 37 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1967:508532 CAPLUS
DOCUMENT NUMBER: 67:108532
ORIGINAL REFERENCE NO.: 67:20455a,20458a
TITLE: Stable pyridine anhydro-bases
AUTHOR(S): Boyd, Gerhard V.; Ezekiel, A. D.
CORPORATE SOURCE: Chelsea Coll. Sci. Technol., London, UK
SOURCE: Journal of the Chemical Society [Section] C: Organic (1967), (19), 1866-8
CODEN: JSOOAX; ISSN: 0022-4952
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Twelve 2- and 4-methylenedihydropyridines containing strongly electron-withdrawing groups on the methylene C atoms have been prepared One anomalous reaction was encountered. The anhydro-bases are protonated in acid solution (in 2 cases also in water) on the exocyclic C atom forming pyridinium ions.
IT 16344-72-2P 16344-75-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16344-72-2 CAPLUS
CN Propanedinitrile, 2-(1-methyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



RN 16344-75-5 CAPLUS
CN Propanedinitrile, 2-(1,2,6-trimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 38 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1964:60896 CAPLUS
DOCUMENT NUMBER: 60:60896
ORIGINAL REFERENCE NO.: 60:10678e-h,10679a-c
TITLE: γ-Pyrones. IV. Reactions with chelidonic acid. 2
AUTHOR(S): Eiden, F.; Peter, P.
CORPORATE SOURCE: Univ. Marburg/Lahn, Germany
SOURCE: Archiv der Pharmazie und Berichte der Deutschen Pharmazeutischen Gesellschaft (1964), 297(1), 1-9
CODEN: APBDAJ; ISSN: 0376-0367
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. CA 58, 1455h. Chelidonic acid (I) di-Et ester and barbituric acid derivs. condense when heated in Ac2O-AcOH to give pyranylidenebarbituric acids (CA 54, 24782i). 1-Phenylchelidamic acid (II), the reaction product of I and PhNH2, also reacted with reactive methylene compds. when heated in Ac2O-AcOH with double decarboxylation to give 1-phenyl-1-azapyranylidene derivs. Active methylene compound and II (each (0.02 mole) in 20 ml. Ac2O and 5 ml. AcOH refluxed 3 hrs., the solution evaporated in vacuo (water pump), and the residue which solidified or became solid after addition of MeOH filtered gave the condensation product. The following compds. were prepared(Z = 1-phenyl-1-azapyran-4-ylidene throughout this abstract) [compound, % yield, m.p., λ (mμ) (solvent given]: III (R = R' = H, Y = O), 85, 325° (AcOH), 402 (dioxane); III (R = R' = Me, Y = O) (IIIa), 80, 310° (dioxane), 403-4(dioxane); III (R = R' = H, Y = S), 50, 330° (AcOH), 430 (AcOH); IV, 79, 279° (EtOH), 397 (MeOH); V, 63, 195° (70% EtOH), 430 (MeOH); VI, 49,

294° [HCONMe2 (DMF)], 476 (DMF); Z:C(CN)2, 64. 310° (DMF),375(AcOH); Z:C(CN)CO2Et, -, 182° (EtOH), 379 (MeOH); VII (R = R' = Me, R'' = H, R''' = CO2Et) (VIIa), 75,257° (EtOH), 401 (MeOH); VII (R = R' = H, R'' = R''' = CO2Et), 57, 249° (MeOH),411 (MeOH); VII (R = R' = Me, R'' = R''' = CO2Et)(VIII), 79, 157-8° EtOH), 412(MeOH); IX(R = H, R' = CO2Et),65, 170° (EtOH),378 (EtOH); IX (R = R' = CO2Et), 50, 139-40° (EtOH), 386 (MeOH).

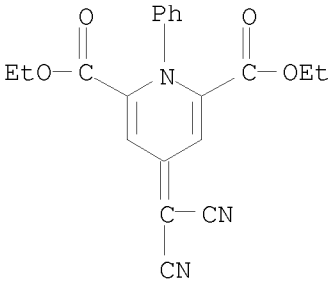
1,3-Dimethylbarbituric acid heated with 1-phenyl-4(1H)-pyridone or 1,4-dihydro-4-oxo-1-phenylpicolinic acid (X) in Ac2O-AcOH gave IIIa, identical (m.p. and ultraviolet spectrum) with IIIa prepared above. VIIa (0.38 g.) in 20 ml. 80% H2SO4 heated 6 hrs. on a water bath, the solution cooled and poured over crushed ice, and the precipitate filtered off gave 0.23 g.

VII (R = R' = Me, R'' = H, R''' = CO2H), m. .apprx.252° (rapid heating) (AcOH), λ (AcOH) 403 mμ, subliming on slow heating to give IIIa; p-bromophenacyl ester m. 267° (AcOH). VIII (0.96 g.) hydrolyzed with 80% H2SO4 as above gave 0.82 g. VII (R = R' = Me, R'' = R''' = CO2H), m. 236-7° (AcOH), λ (MeOH) 392 mμ. XI (R = Et) (E., loc. cit.) (0.7 g.) hydrolyzed with 80% H2SO4 as above gave 0.45 g. XI (R = H), m. above 320° (H2O), λ (DMF) 404 mμ. II (5.0 g.) suspended in 200 ml. EtOH and 50 ml. H2O refluxed 3 hrs. while introducing a vigorous stream of HCl, the resulting solution evaporated in vacuo (water pump), and the sirupy residue heated 15 min. on a water bath in 25 ml. 2N HCl deposited 2.8 g. II mono-Et ester, m. 156° (decomposition) (iso-PrOH). II di-Et ester was prepared from II, EtOH, and HCl. 4-Oxo-4H-pyran-2-carboxylic acid (1.3 g.), 6.0 g. PhNH2, and 5.0 g. H2O refluxed 3 hrs., the solution cooled, the precipitate filtered off and dissolved in hot H2O, and the solution treated with C and acidified gave 1.1 g. X, m. 189° (decomposition) (H2O), λ (H2O) 273 mμ; p-bromophenacyl ester m. 128° (45% EtOH).

IT 94678-52-1
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 94678-52-1 CAPLUS

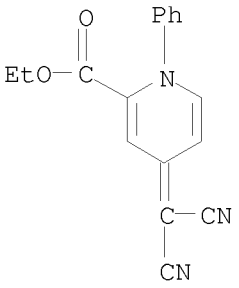
CN 2,6-Pyridinedicarboxylic acid, 4-(dicyanomethylene)-1,4-dihydro-1-phenyl-, 2,6-diethyl ester (CA INDEX NAME)



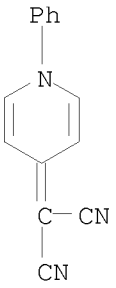
IT 93325-98-5P, Picolinic acid, 4-(dicyanomethylene)-1,4-dihydro-1-phenyl-, ethyl ester
93533-76-7P, Δ4(1H),α-Pyridinemalononitrile, 1-phenyl-
RL: PREP (Preparation)
(preparation of)

RN 93325-98-5 CAPLUS

CN 2-Pyridinecarboxylic acid, 4-(dicyanomethylene)-1,4-dihydro-1-phenyl-, ethyl ester (CA INDEX NAME)

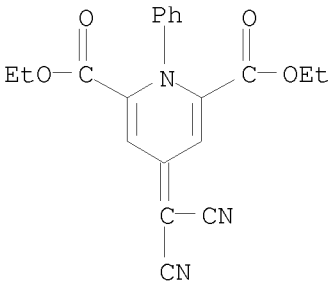


RN 93533-76-7 CAPLUS
CN Propanedinitrile, 2-(1-phenyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L5 ANSWER 39 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1964:60895 CAPLUS
DOCUMENT NUMBER: 60:60895
ORIGINAL REFERENCE NO.: 60:10678d-e
TITLE: Conversion of 4,1-benzoxazepine-2, 5(1H,3H)-diones into 2-(α-hydroxyalkyl)-4-quinazolinones
AUTHOR(S): Uskokovic, M.; Iacobelli, J.; Toome, V.; Wenner, W.
CORPORATE SOURCE: Hoffmann-La Roche, Inc., Nutley, NJ
SOURCE: Journal of Organic Chemistry (1964), 29(3), 582-4
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 60:60895
GI For diagram(s), see printed CA Issue.
AB N-(α-Haloacyl)-anthranilic acids are cyclized with HCONMe2 to 4,1-benzoxazepine-2,5(1H,3H)-diones (I), which in turn undergo ring contraction to 2-(α-hydroxyalkyl)-4-quinazolinones (II or III) when treated with NH3, primary amines, or N2H4.
IT 94678-52-1
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 94678-52-1 CAPLUS
CN 2,6-Pyridinedicarboxylic acid, 4-(dicyanomethylene)-1,4-dihydro-1-phenyl-, 2,6-diethyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

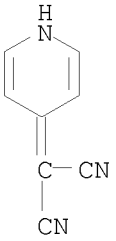
L5 ANSWER 40 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1963:66941 CAPLUS
DOCUMENT NUMBER: 58:66941
ORIGINAL REFERENCE NO.: 58:11496h,11497a-d
TITLE: Alkyl substituted pyrylo- and pyridinocyanines. I. 2,6-Dimethylpyrylo- and 2,6-dimethylpyridinocyanine from 2,6-dimethyl-γ-pyrone
AUTHOR(S): Kelemen, Jozsef; Wizinger, Robert
CORPORATE SOURCE: Univ. Basel, Switz.
SOURCE: Helvetica Chimica Acta (1962), 45, 1908-17
CODEN: HCACAV; ISSN: 0018-019X
DOCUMENT TYPE: Journal
LANGUAGE: German
GI For diagram(s), see printed CA Issue.
AB 2,6-Dimethyl-γ-pyrone was condensed with active methylene and methyl compds. by the procedure of Woods (CA 52, 12853i) to give the cyanine dyes I or II, which were condensed with MeNH2 in EtOH to give the pyridine derivs. III or IV. Thus, to a hot saturated solution of I [R = (NC)2C] (Woods, loc. cit.) in Et0H was added an excess of MeNH2 in EtOH, the mixture refluxed 30 min., cooled, and the precipitate washed with ice-cold EtOH to give III [R = (NC)2C], m. 225-8°, colorless in EtOH, λmaximum 356 mμ. Similarly were prepared (compound, R, m.p., color in EtOH, λmaximum in mμ; m.p., color in EtOH, and λmaximum in mμ of pyridine analogs given): I, p-O2NC6H4C(CN), 205-6°, yellow, 398, 224-6°, red, 487; I, 1,3-indandione-2-ylidene, 258-60° pale yellow, 404,303-4°, pale yellow, 387; I, 3-methyl-1-phenyl-5-pyrazolon-4-ylidene, 212-13°, orange, 410, 280-3°, yellow, 384; I, 3-(1,3-indandion-2-ylidene)-1-indanone-2-ylidene, 255-60° (decomposition), violet, 412 and 568, 313-14°, blue-violet, 558; II, 3-methyl-2-benzoxazolinylium, above 260° (decomposition), yellow, 414 and 430, above 300°, pale yellow, 412; II, 3-methyl-2-henzothiazolinylium, 296° (decomposition) (BF4- salt decompose 274°), yellow, 436 and 460 (BF4- salt 436 and 460), 328-9°, yellow, 440; II, 1-methyl-2(1H)-quinolylium, 220-4° (decomposition), yellow, 482, 258-9°, orange, 479 and 503; II, 1-methyl-4(1H)-quinolylium, 213-15° (decomposition), orange, 508, 237°, violet, 528; II, 2,6-diphenyl-4-pyrylium 223-4°, blue-red, 512, 243-4°, yellow, 454; and II, 4,6-diphenyl-2-pyrylium, 212-13° (HO2CCH2SO3H salt m. 198-200°), red-violet, 540 and 566 (HO2CCH2SO3H salt 540 and 566), 245°, carmine red, 495. Also prepared was the yellow N-phenyl analog of III (R = 3-methyl-2-benzothiazolylium) m. >250° (decomposition), λmaximum 452 mμ. 1,3,3-Trimethyl-2-(N-hydroxyformimidoyl)-2-indolinylium perchlorate (3 g.), 2.8 g. 2,6-diisopropyl-4-methyl-4-pyrylium perchlorate, and 0.8 g. fused powdered

NaOAc in 20 ml. HOAc was boiled 1 min., the mixture cooled, and poured into Et2O to give (1,3,3-trimethyl-2-indolenine)-(2,6-diisopropylpyrylo)monomethinecyanine perchlorate, m. 178.

IT 4664-22-6
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 4664-22-6 CAPLUS

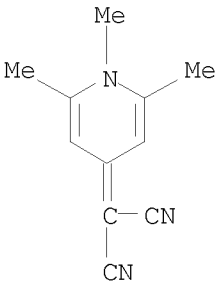
CN Propanedinitrile, 2-(4(1H)-pyridinylidene)- (CA INDEX NAME)



IT 16344-75-5, Δ4(1H),α-Pyridinemalononitrile, 1,2,6-trimethyl-
(spectrum of)

RN 16344-75-5 CAPLUS

CN Propanedinitrile, 2-(1,2,6-trimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L5 ANSWER 41 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1963:66940 CAPLUS

DOCUMENT NUMBER: 58:66940

ORIGINAL REFERENCE NO.: 58:11495g-h,11496a-h

TITLE: Derivatives of imidazobenzothiadiazole, imidazobenzoselenadiazole, imidazobenzotriazole, and imidazoquinoxaline

AUTHOR(S): Fridman, S. G.; Kotova, L. I.

CORPORATE SOURCE: Inst. Org. Chem., Kiev

SOURCE: Zhurnal Obshchei Khimii (1962), 32, 2871-82
CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. CA 55, 24728e; 58, 1564c. Dyes based on the title heterocyclic systems have their absorption maximum shifted considerably toward longer wavelengths in comparison with imidocarbocyanines. 2-Methyl-5,6-dinitrobenzimidazole di-HCl treated with Me2SO4 in aqueous MeOH-NaOH at 90-5° gave 90% 1,2-dimethyl-5,6-dinitrobenzimidazole, m. 239-40° which with Sn-HCl gave 1,2-dimethyl-5,6-diaminobenzimidazole

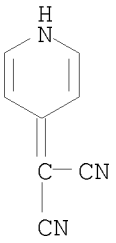
(I) (61%), m. 278°. This with $SOCl_2$ in pyridine-C_6H_6 at reflux 5 hrs. gave 78% 1,2-dimethylimidazo[4,5-f]-2,-1,3-benzothiadiazole, m. 182°; the yield was 54% when C_6H_6 was omitted and the reaction run 2 hrs. in refluxing pyridine; the base formed the Me perchlorate, colorless needles, after treatment with p-$MeC_6H_4SO_3Me$, followed by $NaClO_4$. 2-Methyl-5,6-diaminobenzimidazole (II) and H_2SeO_3 in H_2O gave 61% yellow 2-methylimidazole [4,5-f]-2,1,3-benzoselenadiazole-HCl, decomposed 310°; free base m. 275-6°. Similarly was prepared the 1,2-di-Me analog, yellow needles, m. 243° also formed from the 2-Me analog and Me_2SO_4 in 10% NaOH. The base formed a methiodide, m. 291°. 2-Methyl-and 1,2-dimethylimidazo[4,5-f]benzotriazole bis(Et perchlorate) and bis(Me perchlorate), m. 266-7°, were prepared from the resp. bases (Kym and Ratner, CA 7, 1184; Fries, Ann. 454, 219(1927)). Treatment of I in 2M AcOH-4M NaOAc with glyoxal-$NaHSO_3$ at 60° for 1 hr. gave after addition of NaOH and K_2CO_3 57% yellow 1,2-dimethylimidazo[4,5-g]quinoxaline, m. 214°; Me perchlorate, a solid. I refluxed with Ac_2 in MeOH 3 hrs. gave 75% 1,2,6,7-tetra-methylimidazo[4,5-g]quinoxaline, m. 318°; methiodide m. 275°. II-HCl and benzil in aqueous EtOH gave 60% yellow 2-methyl-6,7-diphenylimidazo[4,5-g]quinoxaline, m. 285-6° which with Me_2SO_4 in NaOH gave 76% 1,2-dimethyl analog, m. 221°, also formed from 1,2-dimethyl-5,6-diaminobenzimidazole and benzil in EtOH; the base formed an ethiodide, m. 291-2°. Similar reaction with phenanthrenequinone gave 557% 1,2-dimethylimidazo-[4,5-g]phenanthro[9,10-b]quinoxaline, m. 282°. Acenaphthenequinone similarly gave 88% 1,2-dimethylimidazo [4,5-g] acenaphtheno[1,2-b]quinoxaline, m. 310°. Heating the appropriate methiodides or Me tosylates with $HC(OEt)_3$ in $PhNO_2$ 1 hr. at 150-60° gave the following dyes (% yield, m.p., and λmaximum in mμ given): bis [1,3-dimethylimidazo [4,5-f] -2,1,3-benzothiadiazole-2]trimethinecyanine iodide, 42, 286°, 576; bis[1,3-dimethylimidazo[4,5-f]-2,1,3-benzoselenadiazole-2]trimethinecyanine p-toluenesulfonate, 79,320°, 596; bis[1,3,5,7-tetramethylimidazo-[4,5-f]benzotriazole-2]trimethinecyanine triperchlorate, 58, 323° 568; bis[1,3-dimethylimidazo[4,5-g]quinoxaline-2] trimethinecyanine iodide, --, --, 560; bis[1,3,6,7-tetramethylimidazo[4,5-g]quinoxaline-2]trimethinecyanine iodide, 61, 290-1°, 556; and bis [1-methyl-3-ethyl-6,7-diphenylimidazo [4,5-g] quinoxaline-2]trimethinecyanine iodide, 55, >320° 594. Similar condensations with 2-(β-acetanilidovinyl)benzothiazole or α-naphthothiazole ethiodide in Ac_2O-Et_3N gave the following dyes (same data given): [1,3-dimethylimidazo[4,5-f]-2,1,3-benzothiadiazole-2]-[3-ethylbenzothiazole-2]trimethinecyanine iodide, 23, 247° 564; [1,3-dimethylimidazo[4,5-f]-2,1,3-benzoselenadiazole-2] [3-ethylbenzothiazole-2][trimethinecyanine iodide, 36, 281° 576; [1,3-dimethylimidazo[4,5-f]-2,1,3-benzothiadiazole-2] [3-ethylnaphtho[2,1-d] thiazole-2]trimethinecyanine iodide, 41, 280° , [585; [1,3-dimethylimidazo[4,5-f]-2,1,3-benzoselenadiazole-2] [3- ethylnaphtho[2,1-d]thiazole-2]trimethinecyanine p-toluenesul-fonate, 42, 284-5°, 594; [1,3,5,7-tetramethylimidazo[4,5-f]-benzotriazole-2] [3-ethylbenzothiazole-2] trimethinecyanine iodide, 52,211-12°, 560; [1,3-dimethylimidazo[4,5-g]quinoxaline-2][3-ethylbenzothiazole-2]trimethinecyanine iodide, 46, 273° 552; [1,3,6,7-tetramethylimidazo [4,5-g] quinoxazoline-2] [3-eth-ylbenzothiazole-2]trimethinecyanine iodide, 33, 320°, 547; [1-methyl-3-ethyl-6,7-diphenylimidazo[4,5-g]quinoxaline-2-] -[3-ethylbenzothiazole-2]trimethinecyanine iodide, 51, 291°, 566. Similarly, appropriate methiodides or Me p-toluenesulfonates treated with 2-(β-acetanilidomethylene)-N-ethylrhodanine in EtOH-Et_3N gave the following dyes (same data given): 3-ethyl-5-[1,3-dimethylimidazo [4,5-f]-2,1,3-benzothiadiazole-2-ethylidene]thiazolidine-2-thione-4-one,

64, 324°, 533; 3-ethyl-5-[1,3-dimethylimidazo [4,5-f] - 2,1,3-benzoselenadiazole-2-ethyli-dene]thiazolidine-2-thione-4-one, 22, 320°, 564; 3-ethyl-5-[1,3,5,7-tetramethylimidazo [4,5-f] benzotriazole-2-ethylidene]-thiazolidine-2-thione-4-one Me p-toluenesulfonate, 32, 272-3°, 547; 3-ethyl-5-[1,3-dimethylimidazo [4,5-g] quinoxaline-2-ethyli-dene]thiazolidine-2-thione-4-one, 70, >300°, 544; 3-ethyl-5-[1,3,6, 7-tetramethylimidazo [4,5-g] quinoxaline-2-ethylidene] -thiazolidine-2-thione-4-one, 53, >300°, 540; 3-ethyl-5-[1-methyl-3-ethyl-6,7-diphenylimidazo[4,5-g] quinoxaline-2-ethylidene]-thiazolidine-2-thione-4-one, 55, >310°, 558. Heating the appropriate methiodides with 2-(methylthio)benzothiazole ethiodide in EtOH-Et3N gave the following dyes (same data given):[1,3-dimethylimidazo[4,5-g]quinoxaline2] [3-ethylbenzothiazole-2]monomethinecyanine perchlorate, 39, --, 441; [1,3,6,7-tetramethylimidazo[4,5-g]quinoxaline-2] [3-ethylbenzothiazole-2]monomethinecyanine iodide, 25, 206°, 436; and [1-methyl-3-ethyl-6,7-diphenylimidazo[4,5-g] quinoxaline-2] [3-ethylbenzothiazole-2]monomethinecyanine iodide, 40, 271-2°, 458. The propriate Me p-toluenesulfonates and p-Me2NC6H4CHO in Ac2O gave (same data given): 2-[p-dimethylaminostyryl]-1-methylimidazo[4,5-f]-2,1,3-benzothiadiazole methiodide, 76, 273°, 503; 2-(p-dimethylaminostyryl)-1-methylimidazo[4,5-f]-2,1,3-benzoselenadiazole Me p-toluenesulfonate, 72,272-3°, 519;2-(p-dimethylaminostyryl)-1,5,7-trimethylimidazo[4,5-f]benzo-triazole dimethiodide, 35, 301°, 517. The last dye tended to lose its iodine content on repeated crystallization from H2O.

IT 4664-22-6
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 4664-22-6 CAPLUS

CN Propanedinitrile, 2-(4(1H)-pyridinylidene)- (CA INDEX NAME)



L5 ANSWER 42 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1961:144162 CAPLUS

DOCUMENT NUMBER: 55:144162

ORIGINAL REFERENCE NO.: 55:27301d-h

TITLE: 1-Alkyl-2(1H)-pyridone derivatives. IV. 1-Phenethyl-3-substituted-2(1H)-pyridones

AUTHOR(S): Tomisawa, Hiroshi; Agatsuma, Tomie; Kamura, Yuichi

SOURCE: Yakugaku Zasshi (1961), 81, 947-50
CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

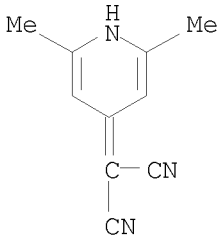
LANGUAGE: Unavailable

AB cf. CA 54, 3416g. 1-Phenethyl-3-cyano-2(1H)-pyridone (I) (15.3 g.) in 10 g. KOH, 10 ml. H2O, and 150 ml. EtOH refluxed 5 hrs., the solution concentrated in vacuo, 200 ml. H2O added, the solution filtered with C, and the filtrate treated with HCl gave 14 g. 1-phenethyl-3-carboxy-2(1H)-pyridone (II), needles, m. 161-3°. Catalytic reduction of II with Raney Ni gave a

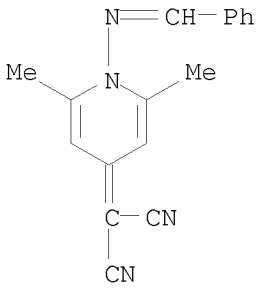
quant. yield of 1-phenethyl-3-carboxy-2-piperidone (III), prisms, m. 98-9° (EtOH). III in AcOH refluxed 2 hrs., the AcOH removed, and the product treated as usual gave 1-phenethyl-2-piperidone, oil. II (18.7 g.), 2 ml. HCONMe2, and 52 ml. SOCl2 refluxed 2 hrs., 100 ml. EtOH added portionwise, the mixture refluxed 1 hr., and the product treated as usual gave 18 g. 1-phenethyl-3-carbethoxy-2(1H)-pyridone (IV), oil, b0.015 191°. IV (7.3 g.) and 2 moles N2H4.H2O with a small amount of EtOH refluxed 3 hrs. and the solvent removed gave 5.7 g. 1-phenethyl-3-hydrazinocarbonyl-2(1H)-pyridone-HCl (V), m. 88-9.5° (10% HCl). V (2 g.) in 50 ml. 5% HCl at 0° treated dropwise with a concentrated solution containing 0.5 g. NaNO2, C6H6 added, the excess HNO3 decomposed with urea, the C6H6 layer and 1 mole PhCH2OH refluxed 3 hrs., and the solvent removed gave 1.4 g. 1-phenethyl-3-benzyloxycarbonylamino-2(1H)-pyridone (VI), oil. VI (1.6 g.), 10 ml. Ac2O, and 10 ml. concentrated HCl refluxed 4 hrs. and the product treated as usual gave 0.48 g. 1-phenethyl-3-amino-2(1H)-pyridone-HCl (VII); Ac derivative, leaves, m. 92-3°. VII (0.3 g.) in 10 ml. concentrated HCl at 0° treated with 0.1 g. NaNO2 and the product treated as usual gave 0.22 g. 1-phenethyl-3-chloro-2(1H)-pyridone (VIII), columns, m. 129-30°. Similarly, 0.3 g. VII and 10 ml. 47% HBr gave 75% 3-Br analog of VIII, m. 139-40°; 3-iodo analog of VIII, m. 115-16°; 3-NO2 analog of VIII, m. 150-1°. VII (0.2 g.) in 2 ml. concentrated H2SO4 and 5 ml. H2O at 0° treated with 0.1 g. NaNO2, this added into Cu2(CN)2 solution (from 7 g. CuSO4.5H2O and 7.5 g. KCN), kept overnight, and the product extracted with CHCl3 gave 0.1 g. I, b0.02 175-90°, m. 115-16°.

IT 102654-01-3P, Δ4(1H),α-Pyridinemalononitrile, 2,6-dimethyl- 107151-81-5P, Δ4(1H),α-Pyridinemalononitrile, 1-benzylideneamino-2,6-dimethyl-
RL: PREP (Preparation)
(preparation of)

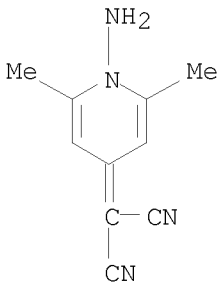
RN 102654-01-3 CAPLUS
CN Propanedinitrile, 2-(2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



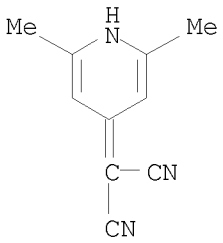
RN 107151-81-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[(phenylmethylene)amino]-4(1H)-pyridinylidene]- (CA INDEX NAME)



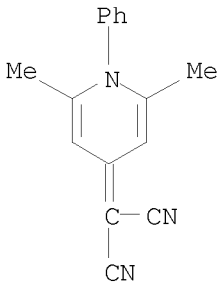
L5 ANSWER 43 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1961:144161 CAPLUS
DOCUMENT NUMBER: 55:144161
ORIGINAL REFERENCE NO.: 55:27301b-d
TITLE: Non-benzenoid aromatic heterocycles. III. Conversion of 4-pyrone derivatives into 4-pyridone derivatives
AUTHOR(S): Kato, Hiroshi; Ogawa, Takatoshi; Ohta, Masaki
CORPORATE SOURCE: Tokyo Inst. Technol
SOURCE: Bulletin of the Chemical Society of Japan (1960), 33, 1468-9
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB 4-Pyrones reacted with amines to give 4-pyridones. 4-(Dicyanomethylene)-2,6-dimethyl-4H-pyran (I) (3.5 g.) and 4 g. PhNH2 refluxed 1 hr. and the mixture washed with dilute HCl gave 20% N-phenyl-4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 314-15° (HOAc). Similarly, I with BzNH2 at 150° gave 34% N-benzyl-4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 242-5° (EtOH), and with NH2NH2.H2O at 100° gave 40% N-amino-4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 291-2° (decomposition) (HOAc). 4-(Ethoxycarbonylcyanomethylene)-2,6-dimethyl-4H-pyran with BzNH2 gave N-benzyl-4-(ethoxycarbonylcyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 183-4° (EtOH), with NH2NH2.H2O gave N-amino-4-(ethoxycarbonylcyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 217-18° (EtOH), but did not react with PhNH2 or HCONH2. N-Amino-4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine (0.6 g.) and 0.4 g. BzH refluxed 1 hr. gave 0.6 g. (crude) N-benzalamino-4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 294-5° (AcOH). I (5 g.) in 5 g. HCONH2 kept 1 hr. at 150° gave 1.7 g. 4-(dicyanomethylene)-2,6-dimethyl-1,4-dihydropyridine, m. 330-1° (HCO2H).
IT 62071-85-6P, Δ4(1H),α-Pyridinemalononitrile, 1-amino-2,6-dimethyl- 102654-01-3P, Δ4(1H),α-Pyridinemalononitrile, 2,6-dimethyl- 106883-97-0P, Δ4(1H),α-Pyridinemalononitrile, 2,6-dimethyl-1-phenyl- 107151-81-5P, Δ4(1H),α-Pyridinemalononitrile, 1-benzylideneamino-2,6-dimethyl- 107518-55-8P, Δ4(1H),α-Pyridinemalononitrile, 1-benzyl-2,6-dimethyl-
RL: PREP (Preparation)
(preparation of)
RN 62071-85-6 CAPLUS
CN Propanedinitrile, 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



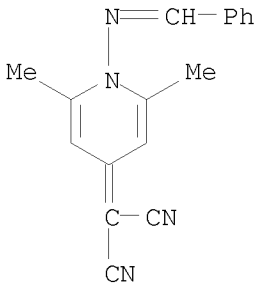
RN 102654-01-3 CAPLUS
CN Propanedinitrile, 2-(2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



RN 106883-97-0 CAPLUS
CN Propanedinitrile, 2-(2,6-dimethyl-1-phenyl-4(1H)-pyridinylidene)- (CA INDEX NAME)

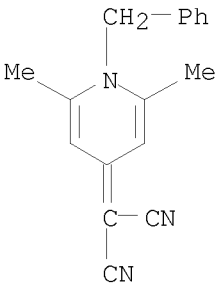


RN 107151-81-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[(phenylmethylene)amino]-4(1H)-pyridinylidene]- (CA INDEX NAME)



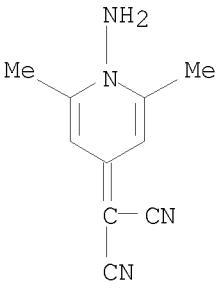
RN 107518-55-8 CAPLUS

CN Propanedinitrile, 2-[2,6-dimethyl-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)

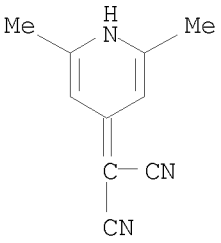


OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

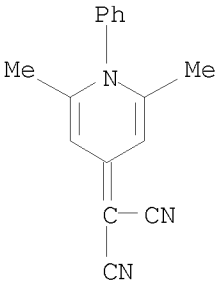
L5 ANSWER 44 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1961:81717 CAPLUS
DOCUMENT NUMBER: 55:81717
ORIGINAL REFERENCE NO.: 55:15482c-e
TITLE: Conversion of 4-pyrone derivatives into 4-pyridone derivatives
AUTHOR(S): Kato, Hiroshi; Ogawa, Takatoshi; Ohta, Masaki
CORPORATE SOURCE: Tokyo Inst. Technol., Japan
SOURCE: Chemistry & Industry (London, United Kingdom) (1960) 1300
CODEN: CHINAG; ISSN: 0009-3068
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB O.CMe:CH.C[:C(CN)R].CH:CMe2 (I) (R = CN) (Ia) with PhNH2 gave 20% R'N.CMe:CH.C[:C-(CN)R].CH:CMe (II) (R = CN, R' = Ph), m. 314-15°. Similarly prepared were II (R = CN, R' = PhCH2), m. 242-5°, with PhCH2NH2 (III), and II (R = CN, R' = NH2) (IV), m. 291-2°, with N2H4.H2O (V). The structure of IV was established by conversion to its benzal derivative, m. 254-5°. Heating Ia in HCONH2 gave II (R = CN, R' = H) or 34% 2,6-dimethyl-4-dicyanomethylpyridine, m. 294-5°. I (R = CO2Et) with III gave 80% II (R = CO2Et, R' = PhCH2), m. 183-4°, and with V gave 71% II (R = CO2Et, R' = NH2), m. 217-18°.
IT 62071-85-6P, Δ4(1H),α-Pyridinemalononitrile, 1-amino-2,6-dimethyl- 102654-01-3P, Δ4(1H),α-Pyridinemalononitrile, 2,6-dimethyl- 106883-97-0P, Δ4(1H),α-Pyridinemalononitrile, 2,6-dimethyl-1-phenyl- 107151-81-5P, Δ4(1H),α-Pyridinemalononitrile, 1-benzylideneamino-2,6-dimethyl- 107518-55-8P, Δ4(1H),α-Pyridinemalononitrile, 1-benzyl-2,6-dimethyl-
RL: PREP (Preparation)
(preparation of)
RN 62071-85-6 CAPLUS
CN Propanedinitrile, 2-(1-amino-2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



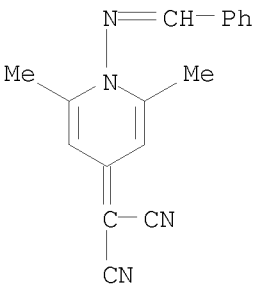
RN 102654-01-3 CAPLUS
CN Propanedinitrile, 2-(2,6-dimethyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



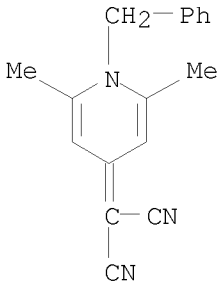
RN 106883-97-0 CAPLUS
CN Propanedinitrile, 2-(2,6-dimethyl-1-phenyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



RN 107151-81-5 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-[(phenylmethylene)amino]-4(1H)-pyridinylidene]- (CA INDEX NAME)



RN 107518-55-8 CAPLUS
CN Propanedinitrile, 2-[2,6-dimethyl-1-(phenylmethyl)-4(1H)-pyridinylidene]- (CA INDEX NAME)



L5 ANSWER 45 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1957:43354 CAPLUS
DOCUMENT NUMBER: 51:43354
ORIGINAL REFERENCE NO.: 51:8096e-i,8097a-i,8098a-f
TITLE: Pseudo bases. I. Additions of methyl and methylene ketones to pyridinium salts
AUTHOR(S): Krohnke, Fritz; Ellegast, Konrad; Bertram, Ewald
CORPORATE SOURCE: Forschungsinst. Dr. A. Wander, A.-G., Sackingen/Baden, Germany
SOURCE: Justus Liebigs Annalen der Chemie (1956), 600, 176-98
CODEN: JLACBF; ISSN: 0075-4617
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB Pyridinium, quinolinium, and isoquinolinium bases form addition compds. with simple Me ketones and with certain methylene ketones. The adducts are easily retrograded by acids, and can be dehydrogenated to form bases that yield stable salts. The adducts are considered to be "salts" in which the organic cation and anion are stabilized with regard to resonance, and which are related to bases (termed mesomeric cations) which are considered intermediate between ammonium arid carbinol bases. The possibility of existence. of pseudo bases (i.e. carbinol bases) increases with decreasing aromaticity of the heterocycle. With hyperaromatic N-heterocycles like pyridine, such bases could not be isolated. In the case of quinoline and isoquinoline derivs., in certain instances such bases could be prepared, but the formation of mesomeric cations was favored. In the acridine series, and with heterocycles containing O, carbinol bases are favored over ammonium or mesomeric cations; this also occurs in the Ph3CH series. Hydrogenation of heterecycles greatly increases the stability of the carbinol bases, which are easily isolated. 2,6-Cl2C2H2Me (322 g.) in 400 cc. CCl4, stirred and irradiated was treated dropwise with 100.2 cc. Br in 50 cc. CCl4 giving 422 g. 2,6-Cl4C4H4CH4Br (I), m. 55°; details of purification are given. I is a powerful lacrimator. I with a slight excess of pyridine (cf. C.A. 47, 1704f), heated in Me2CO gave, in excellent yield, N-(2,6dichlorobenzyl)pyridinium bromide (II) m. 216-17°; this in MeOH with p-ONC6H4NMe6 (IIa) gave 58% 2,6-Cl6C6H6CH:N→O) C6H6NMe6-4 (III), yellow prismatic spikes, m. 152-3°. When 10% pyridine or α-picoline was added to the MeOH, 75% and 81% III, resp., were obtained. Formed similarly from I and appropriately substituted pyridines were the following derivs. of II: 93% 3-Me, m. 183-4° (from 1:1 EtOH-Et2O); 89% 3-HOCH2.H2O, m. 111-13°; 97% 3-H2NCO (IIIa), m. 246-8°; 95% 3-Et2-NCO, m. 197°; 90% 3-NC, m. 187-8°; and 96% 3-AcNH, m. 231°.

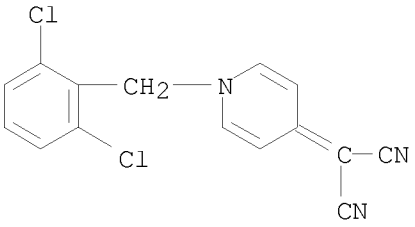
II (1.92 g.) in 15 cc. Me2CO and 3 cc. H2O at 20° with 5 cc. 2N NaOH gave 1.69 g. Me2CO adduct, C2H2ONCl2 (IV), colorless rhombs, m. 94-5° (when cooled to 0°; not recrystallizable), forming a brown resin on standing. Similarly formed were the following adducts of II, analogs of IV; 58% BzMe (IVa), pale yellow prisms, m. 80-1°; 70% cyclohexanone, yellowish leaflets, m. 83-4°; 66% deoxybenzoin, yellow, m. 87-8°; and 79% monohydrate of the 3-H2NCO derivative of IV, m. 138-9° (decomposition). In the following dehydro compds. R: = N-[2,6-dichlorobenzyl]-1,4-dihydro-4-pyridylidene. To 6.38 g. II in 25 cc. MeOH, 5 cc. BzMe, and 1.8 g. IIa at 20° under N was added 20 cc. 2N NaOH, giving, after 4 hrs. 5.4 g. R:CHBz (IVb), dark yellow rhombs, m. 166-7° (HClO4 salt, leaflets, m. 216-17°; HBr salt, thin rhombs, m. 187-88°). Similarly formed were the following compds. (reaction time in hrs., % yield, crystalline color and form, and m.p. given): R: CHAc (IVc), 3, 97, yellow needles changing to octahedra, 203-4° (HClO4 salt colorless, m. 192-3°); R:CHCOEt, 1.5, 19, yellow prisms, 219-20°; R:CHCOC6H4Me-4, 7, 70, yellow needles, 213-14°; R:CHCOC6H4OMe-4, 21, 72.6, yellow needles, 199-200°; R:CHCOC6H4Br-4, 7, 59.8, yellow prisms, 218-19°; R:C. CH2.CH2.CH2.CO, 4, 60, yellow rectangles with violet luster, 229-30°; R: C.CO.CH2.CH2.CH2.CH2, 2, 98.5, yellow prisms, 209-10°; R: C. CO. CH2.CHMe.CH2.CH2, 2.5, 90, orange polyhedrons, 207-8° (resinifying on storage); R:C.CO.CH2.CH2.CHMe.CH2, 2, 77.8, yellow triboelectric needles, 186°; R:C.CH2.CH2.CH2.CH2.CH2.CO, 20, 46, yellow prisms, 167-8°; R: CH-NO2, 2, 14.8, yellowish brown leaflets with blue luster, 233-5° (sintering at 230°). The following were prepared using aeration (instead of IIa) and 2N MeONa in place of aqueous NaOH: R:C(CN)2, 24, 30, colorless needles, 234-5°; cyclopentadienylidene analog, 40, 51°, red prisms with blue luster, 199-20° (from HCONMe2); 1-indenylidene analog (V), 30, 23, red microprisms with steely luster, 234-5° (from C6H6). The 9-fluorenylidene analog of V, C25H17NCl2, dark red prisms with blue luster, m. 232-3°, when formed with IIa, 55.7% yield in 90 hrs., with air, 10% in 96 hrs. Using air as oxidant, 0.64 g. II, 0.3 g. 1,3-indandione in 10 cc. MeOH containing 0.4 cc. 10N NaOH gave, after 24 hrs., 0.32 g. N-[2,6-dichlorobenzyl]-4-[1,3-dioxo-2-hydrindylidene]-1,4-dihydropyridine, C12H13O2NCl2, yellow, m. 334-5° (from AcOH). Similarly, II and 1-phenyl-3-methyl-5-pyrazolone gave 70% N-[2,6-dichlorobenzyl]-4-[1-phenyl-3-methyl-5-pyrazolon-4-ylidene]-1,4-dihydropyridine, yellow, m. 223-4°. The following compds., R'N.CH:CH2C(:CHR'').CR''':-CH, formed by dehydrogenation (with IIa) of the appropriate ketone adducts (R' = 2,6-Cl2C6H3CH2; R''',R'', reaction time, % yield, crystalline properties, and m.ps. given): Me, Ac, 3, 89, yellow rhombs, 193° (HClO4 salt, m. 190-1°; HBr salt, hexagons, m. 216-18°); CH2OH, Ac, 1.5, 95.6, yellow hexagons, 205-6°; CH2OH, Bz, 17, 65, yellow rhombs, 207° (decomposition) (HBr salt, yellow, m. 220-1°, yellowish green ultraviolet fluorescence); CONH2 Ac, 1.5, 97.6, yellow, 220-1° (HBr salt, decompose 289°); CONH2, Bz, 3, 89, -, -(HCl salt, yellow rhombic leaflets, 271-2°); CONH2, p-MeOC6H4CO, 72, 85, yellow, 278-9° (HCl salt, orange prisms, 271-2°, blue ultraviolet fluorescence in H2O); CONEt2, Bz, 7.97, yellow, 201°; CONEt2 Ac, 5.5, 86.5, yellow hexagons, 170-1° (when crude, m.p. lower on recrystn.); CONH2, (:CHR'' =) 2-cyclohexanonylidene, 7, 71.4, yellow rectangles, m. 201-2° (decomposition). The 3,4-Cl2 isomer of II (0.96 g.) in 10 cc. Me2CO and 10 cc. H2O at 20° was shaken with 0.6 cc. 10N NaOH, 20 cc. Me2CO added to dissolve the resin, and then 0.63 g. KMnO4 in 10 cc. Me2CO. The warmed mixture was filtered, treated with C, refiltered, H2O added to incipient cloudiness and cooled to 0° giving 0.32 g. N-[3,4-dichlorobenzyl]-4-acetonylidene-1,4-dihydropyridine (VI), yellow, m. 146-7° (from 1:1 C6H6-ligroine). Similarly formed were the 2,4-dichloro isomer of VI, yellow, m. 144-5° and the 4-monochloro

analog of VI, yellow, m. 133-4° (from Et2O). VI and its isomer and analog resinify on standing. Oxidation of IVa in pyridine, with KMnO4 gave IVb. Formed similarly was the 3,4-dichloro isomer of IVb, yellow, m. 166° (cf. Baker and McEvoy, C.A. 50, 3454g). In place of IIa, K nitrosodisulfonate converted IV into 77% IVc. IV (0.62 g.) in dry C6H6 with 0.22 g. benzoquinone in 20 min. formed 0.75 g. adduct IVc.1,4-C6H4(OH)2, orange prisms, m. 176-8°, also formed from IVc and 1,4-C6H4(OH)2, readily reconverted into IVc by treatment with HClO4 followed by treatment with 2N NaOH. In the following cases adducts of N-phenethylpyridinium bromide (VII) were not isolated but dehydrogenated directly. E.g., 2.64 g. VII with 0.8 g. IIa and 3 cc. BzMe in 15 cc. MeOH under N, with 2 cc. 10N NaOH gave 1,6 g. N-phenethyl-4-phenylidene-1,4-dihydropyridine, yellow hexagons, m. 198-9° (from 50% MeOH, the mother liquor from which gave 0.05 g. azoxydimethylaniline, orange, m. 241-2°). Similarly prepared from Me2CO was the 4-acetonylidene analog, yellow rectangles, m. 187-8°. Formed from the appropriate pyridinium salts, sometimes under slightly modified conditions were the following 4-acetonylidene-1,4-dihydropyridines: 45% N-PhCH(OH)CH2, yellow rhombs, decompose about 227-8°; 72% N-[4-ClC6H4CH2CH2], yellow leaflets, m. 193-4°; 34.3% N-[4-ClC6H4CH(OH)CH2], yellow rhombs, m. 230-1° (decomposition); 42% N-[4-O2NC6H4CH(OH)CH2], slender yellow leaflets, decompose 220°; N-[β-2-chlorostyryl], reddish brown leaflets, m. 182-3° (from C6H6). Similarly formed were the following 4-phenacylidene-1,4-dihydropyridines: N-PhCH(OH)CH2, yellow leaflets, decompose 227-8°; N-[β-4-chlorostyryl], nacreous, orange leaflets, m. 230° (decomposition); N-(β-styryl), orange leaflets, m. 208-9° (sintering 188°); N-[β-2-chlorostyryl), reddish orange hexagons, m. 212°. The following 1,4-dihydropyridines, were also formed using air and NaOH in MeOH: 90% N-(β-styryl)-4-(1-phenyl-3-methyl-5-pyrazolon-4-ylidene), red slender leaflets, m. 239-40° and 43% N-(β2-chlorostyryl)-4-(2-cyclohexanonylidene), yellowish brown leaflets, m. 192-3°. Nicotinamide MeBr salt (2.17 g.) (VIII), 3 cc. BzMe, 0.8 g. IIa, and 60 cc. MeOH under N with 2 cc. 10N NaOH gave 1 g. N-methyl-4-phenacylidene-1,4-dihydronicotinamide (IX), yellow leaflets, m. 278-9° (decomposition), which with HBr at 100° formed 2-methyl-5,8-dihydro-5-phenyl-8-oxo-2,7-naphthyridinium bromide, yellow prisms, decompose 299-300°. VIII with 4-MeOC6H4Ac gave 35.2% 4-MeO derivative of IX, brownish yellow, nacreous leaflets, decompose 277-8°; HBr salt-H2O, yellow needles, m. 278-9° (decomposition). N-(Diphenylmethyl)-4-(1-phenyl-3-methyl-5-pyrazolon-4-ylidene)-1,4-dihydropyridine, yellow, prisms, m. 238-9°. IVc (0.882 g.) in 50 cc. EtOH with 0.2 g. MgO was shaken at 20° with 50 mg. Pt black and hydrogenated. After filtration, and washing the residue with EtOH, the evaporated filtrates gave an oil which with 5 cc. N HClO4 gave 1.15 g. N-(2,6-dichlorobenzyl)-4-acetonylpiperidine-HClO4, colorless, m. 167-8° (from Me2CO). 39 references.

IT 100964-61-2P, Malononitrile, [1-(2,6-dichlorobenzyl)-4(1H)-pyridylidene]-
RL: PREP (Preparation)
(preparation of)

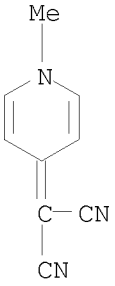
RN 100964-61-2 CAPLUS

CN Propanedinitrile, 2-[1-[(2,6-dichlorophenyl)methyl]-4(1H)-pyridinylidene]- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L5 ANSWER 46 OF 46 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1954:39184 CAPLUS
DOCUMENT NUMBER: 48:39184
ORIGINAL REFERENCE NO.: 48:7011g-i,7012a
TITLE: Reactions of quinolinium compounds with malononitrile and ethyl cyanoacetate
AUTHOR(S): Leonard, Nelson J.; Foster, Robert L.
CORPORATE SOURCE: Univ. of Illinois, Urbana
SOURCE: Journal of the American Chemical Society (1952), 74, 2110-11
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 46, 3055b. The structures erroneously assigned by Kaufmann and Vonderwahl (C.A. 6, 2610) to condensation products derived from 1-methylquinolinium iodide (I) have been corrected. I, m. 146° (13.6 g.), 3.3 g. CH2(CN)2 (II), and 100 cc. absolute EtOH (ice bath), treated with 2.3 g. Na in 50 cc. absolute EtOH, and the mixture stirred 3 hrs. and let stand overnight yielded 1.1 g. 1-methyl-4-dicyanomethylene)-1,4-dihydroquinoline (III), m. 291.5-2.5°.
1-Methyl-4-chloroquinolinium iodide, m. 204-6° (1.3 g.), 0.3 g. II, and 75 cc. absolute EtOH treated with 0.1 g. Na in 50 cc. absolute EtOH, and the mixture stirred 8 hrs. yielded 100% III, m. 291.5-2.5°.
1,2-Dimethylquinolinium iodide (IV), m. 195-6° (14.2 g.), 3.3 g. II, and 100 cc. absolute EtOH treated with 1.2 g. Na in 50 cc. absolute EtOH, and the mixture stirred 4 hrs. and let stand 4 hrs. at 25° yielded 3.8 g. 1,2-dimethyl-4-(dicyanomethylene)-1,4-dihydroquinoline, m. 267.5-68°. I and NCCH2CO2Et (V) yielded 23% 1-methyl-4-(carbethoxycyanomethylene)-1,4-dihydroquinoline m. 181.5-2.5°. IV and V gave 1,2-dimethyl-4-(carbethoxycyanomethylene)-1,4-dihydroquinoline, m. 172.5-3.5°. I did not yield any isolatable product with CH2(CO2Et)2, MeCN, or PhCH2CO2Et; with AcCH2CO2Et it did not give the product described by K.
IT 16344-72-2P
RL: SPN (Synthetic preparation); PRP (Properties); PREP (Preparation)
(Reactions of quinolinium compounds with malononitrile and ethyl cyanoacetate)
RN 16344-72-2 CAPLUS
CN Propanedinitrile, 2-(1-methyl-4(1H)-pyridinylidene)- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

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